



APPLICATION ACCEPTED: September 24, 2009
APPLICATION AMENDED: May 8, 2012
PLANNING COMMISSION: July 26, 2012
BOARD OF SUPERVISORS: Not yet scheduled

County of Fairfax, Virginia

July 12, 2012

STAFF REPORT

APPLICATIONS RZ 2009-PR-022

PROVIDENCE DISTRICT

APPLICANT:	James Hollingsworth
PRESENT ZONING:	R-1 (Residential, One Dwelling Unit per Acre)
REQUESTED ZONING:	R-4 (Residential, Four Dwelling Units per Acre)
PARCEL:	49-1 ((4)) 16A
ACREAGE:	1.45 acres
DENSITY:	2.07 du/ac
PLAN MAP:	Residential; 3-4 du/ac
PROPOSAL:	Rezone from the R-1 District to the R-4 District to allow the construction of three single-family detached dwellings.

STAFF RECOMMENDATIONS:

Staff recommends approval of RZ 2009-PR-022, subject to executed proffers consistent with those contained in Appendix 1.

Staff recommends approval of a modification of the Comprehensive Plan Trail requirement to allow an 8-foot wide trail.

St.Clair Williams

Excellence * Innovation * Stewardship
Integrity * Teamwork * Public Service

Department of Planning and Zoning
Zoning Evaluation Division
12055 Government Center Parkway, Suite 801
Fairfax, Virginia 22035-5509
Phone 703-324-1290 FAX 703-324-3924
www.fairfaxcounty.gov/dpz/



It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions proffered by the owner, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standard.

It should be further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Supervisors.

The approval of this application does not interfere with, abrogate or annul any easements, covenants, or other agreements between parties, as they may apply to the property subject to this application.

For information, contact the Zoning Evaluation Division, Department of Planning and Zoning, 12055 Government Center Parkway, Suite 801, Fairfax, Virginia 22035-5505, (703) 324-1290.

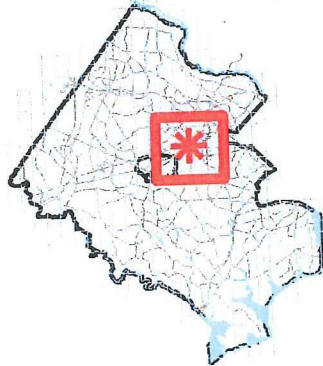
O:\SWILL\ARZ\ARZ 2009-PR-022 James Hollingsworth\Staff Report\Draft Staff Report.doc



Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 48 hours advance notice. For additional information on ADA call (703) 324-1334 or TTY 711 (Virginia Relay Center).

Rezoning Application

RZ 2009-PR-022



Applicant:
Accepted:
Proposed:
Area:

JAMES M. HOLLINGSWORTH
09/24/2009; AMENDED 5/8/2012
RESIDENTIAL
1.45 AC OF LAND;
DISTRICT - PROVIDENCE
ZIP - 22180

Located:

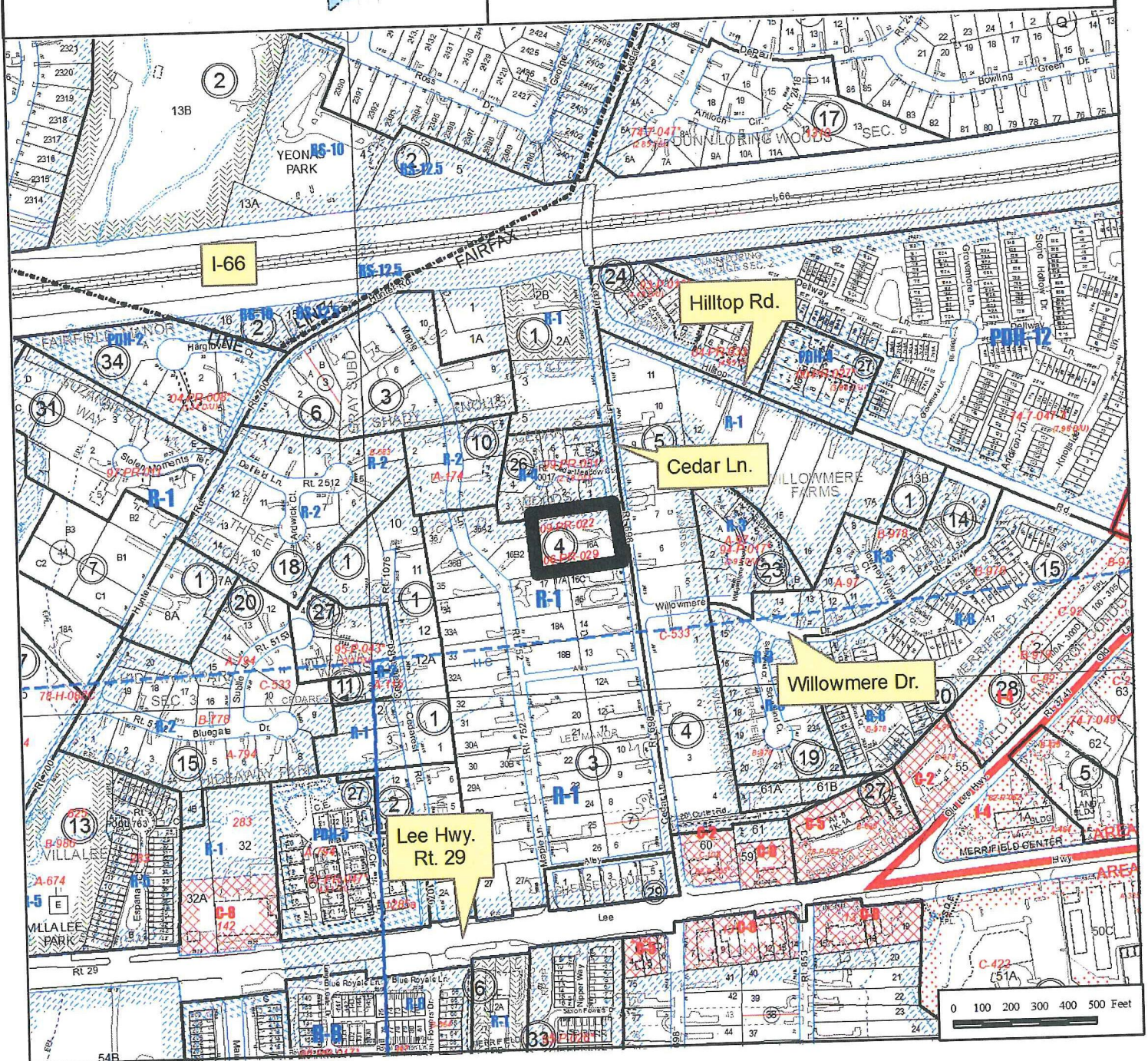
WEST SIDE OF CEDAR LANE APPROXIMATELY
150 FEET NORTH OF ITS INTERSECTION
WITH WILLOWMERE DRIVE

Zoning:

FROM R- 1 TO R- 4

Map Ref Num:

049-1- /04/ /0016A



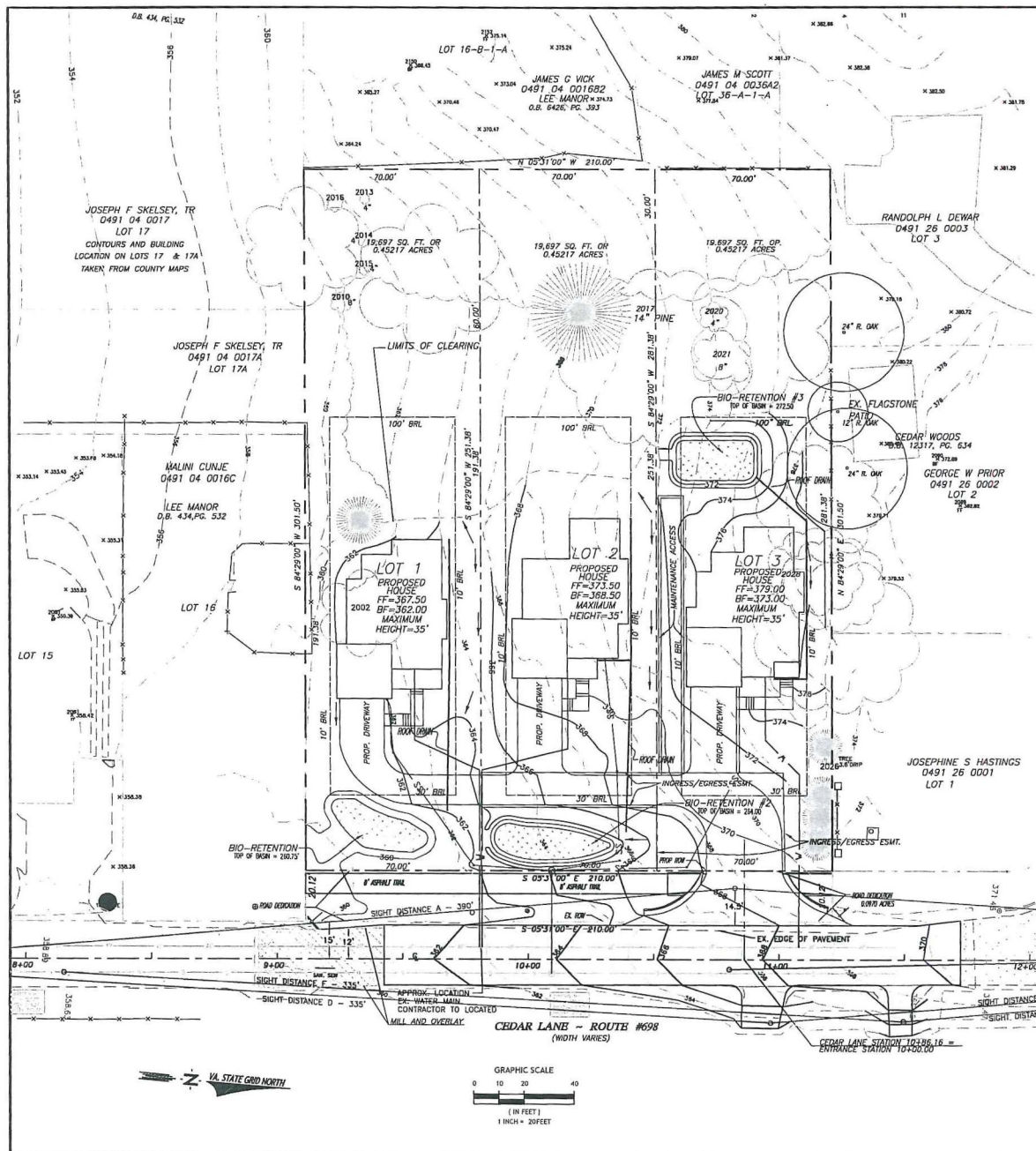
GENERAL NOTES

- SHEET INDEX

- COVER SHEET
GENERALIZED DEVELOPMENT PLAN
HOLLINGSWORTH PROPERTY
PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA

[illegible]

RECEIVED
Department of Planning & Zoning
MAY 08 2012
Zoning Evaluation Division



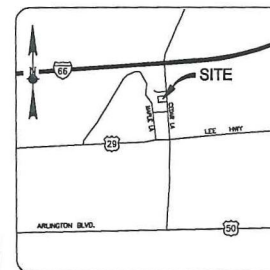
DENSITY CALCULATIONS
3 LOTS / 1.3565 ACRES = 2.21 UNITS / ACRE
MAXIMUM DENSITY PERMITTED (R-4) = 4 UNITS / ACRE
(OR 0.9347 x 4 = 3.7 TOTAL UNITS)
DENSITY IS PROFFERED AT 2.21 UNITS/ACRE

DEVELOPMENT TABULATION

GROSS SITE AREA	1.4535 ACRES
RIGHT-OF-WAY DEDICATION	0.0970 ACRES
AREA OF LOTS	59,089 SF / 1.3565 ACRES
AVERAGE LOT AREA	19,697 SF / 0.4522 ACRES
MAX. NO. OF DWELLING UNITS PROPOSED	3

LOT 1	19,697 SF / 0.45 ACRES
LOT 2	19,697 SF / 0.45 ACRES
LOT 3	19,697 SF / 0.45 ACRES

ALL AREAS ARE APPROXIMATE AND SUBJECT TO CHANGE WITH FINAL ENGINEERING.



LEGEND

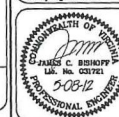
---	LIMITS OF CLEARING & GRADING
---	EXISTING ELEVATION
---	EXISTING CONTOUR
---	PROPOSED ASPHALT
---	PROPOSED PERMEABLE PAVERS

GENERAL NOTES:

1. ALL UTILITIES ARE PRELIMINARY AND SUBJECT TO FINAL DESIGN.
2. REFER TO SHEET J FOR EXISTING BUILDING AND STRUCTURES.
3. REFER TO SHEET 5 & 6 FOR BIO-RETENTION DESIGN/PLANTING
4. BIO-RETENTION DESIGN IS PRELIMINARY AND SUBJECT TO CHANGE WITH FINAL PLANS.
5. STREET IMPROVEMENTS PROPOSED WITH THIS PLAN RAISING THE GRADE OF CEDAR LANE.
6. THERE ARE NO MAJOR OPEN SPACE OR COMMUNITY OR PUBLIC FACILITIES PROPOSED WITH THIS PROJECT.
7. THERE ARE NO SANITARY SEWER IMPROVEMENTS PROPOSED WITH THIS PLAN EXCEPT SEWER LATERALS.
8. TOPOGRAPHIC INFORMATION, FIELD RUN, PROVIDED BY VIK, INC. AS SUPPLEMENTED BY THIS FIRM IN APRIL 2006.
9. PARKING WILL BE PROVIDED IN ACCORDANCE WITH ARTICLE 11. FOR SINGLE FAMILY DETACHED PARKING IS 2 PARKING SPACES PER UNIT.
10. THIS REZONING IS FOR RESIDENTIAL USE.
11. THIS PLAN IN FULL COMPLIANCE WITH THE RESIDENTIAL DEVELOPMENT CRITERIA OF THE ADOPTED COMPREHENSIVE PLAN OF THE COUNTY.
12. THIS PROPOSED DEVELOPMENT CONFORMS TO THE PROVISIONS OF ALL APPLICABLE ORDINANCES, REGULATIONS AND ADOPTED STANDARDS OF FAIRFAX COUNTY, VIRGINIA.
13. THERE IS NO WAIVER REQUEST FOR YARD REGULATIONS FOR YARD ABUTTING CERTAIN PRINCIPAL ARTERIAL HIGHWAYS AND RAILROAD TRACKS PURSUANT TO SECTION 2-414 OF THE ZONING ORDINANCE. ALL STRUCTURES WILL BE MORE THAN 200 FEET FROM INTERSTATE 66.
14. THE APPROXIMATE LIMITS OF CLEARING AND GRADING ARE SHOWN ON THE GDP. EXISTING TREES WILL BE SAVED WHERE POSSIBLE TO PROVIDE THE NECESSARY 25% TREE COVER. SEE TREE COVER CALCULATION. IF THE EXISTING TREES DO NOT EQUAL OR EXCEED THE REQUIRED TREE COVER, THEN ADDITIONAL TREES WILL BE PLANTED TO FULFILL THE REQUIREMENT.
15. NO STRUCTURES WILL BE CONSTRUCTED WITHIN THE TREE PRESERVATION AREA.
16. BIO-RETENTION FACILITIES TO BE MAINTAINED BY THE RESPECTIVE LOT OWNERS.
17. A WAIVER FOR CURB AND GUTTER ALONG CEDAR LANE IS REQUESTED.
18. A MODIFICATION OF THE TRAIL REQUIREMENT TO AN EIGHT FOOT TRAIL MAINTAINED BY PROPERTY OWNERS IS REQUESTED.



J2 Engineers, Inc.
4080 Lafayette Center Drive
Suite 330
Cherry Hill, Virginia
703.361.1550 (office)
703.361.1566 (fax)
www.j2engineers.com



PLAN DATE
09/04/2008
DATE
11/06/2011
CONTOUR INT.
2'
SCALE
1" = 20'

**GENERALIZED DEVELOPMENT PLAN
HOLLINGSWORTH PROPERTY**
PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA

NO.	DATE	DESCRIPTION	REVISIONS
1.	11/21/11	NEW ENGINEER	
2.	11/21/11	Address Staff comments for submittal	
3.	11/21/11	Address Staff comments for submittal	
4.	5/08/10	Address Staff comments for submittal	

SHEET
2
OF
10



J2 Engineers, Inc.
2000 Lafayette Center Drive
Chantilly, Virginia
703.341.1000 (office)
703.341.1004 (fax)
www.j2engineers.com



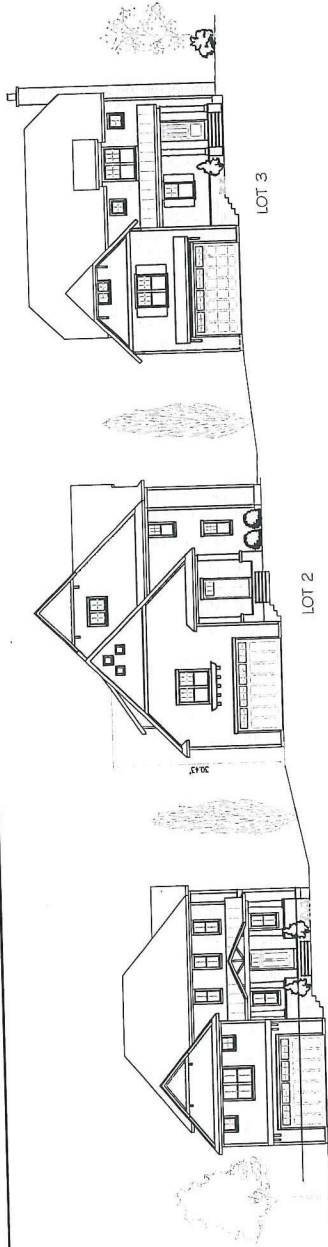
PLAN
DATE: 10/26/02 2011
CONTOUR INT. = 4'
SCALE: AS SHOWN

PLAN DATE
5/2/12
5/2/12
5/2/12
5/2/12
5/2/12
5/2/12

CEAR LANE PROPOSED HOME DESIGNS & SITINGS
GENERALIZED DEVELOPMENT PLAN
PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA

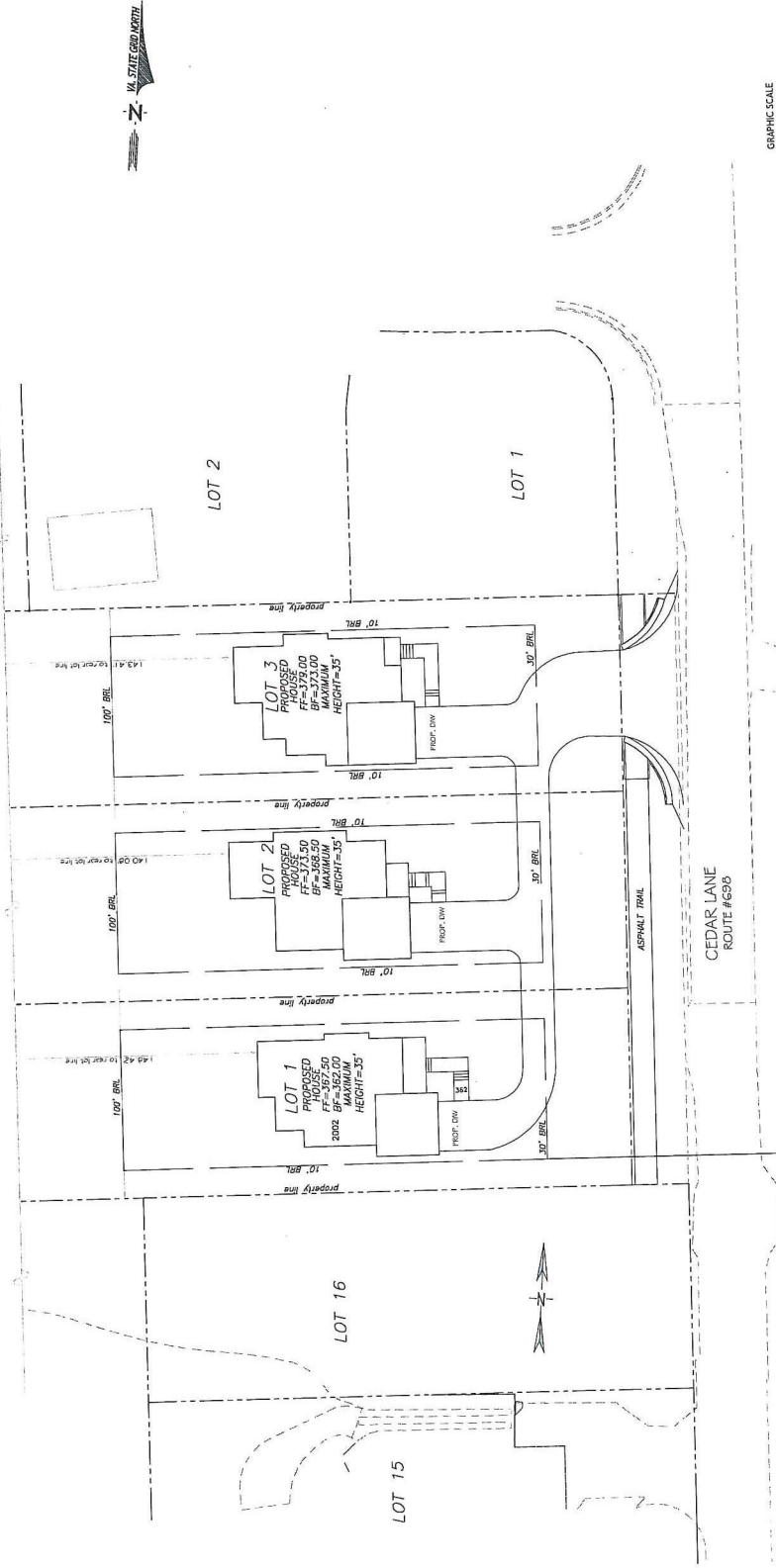
REVISIONS	
NO.	DATE
1	11/21/11
2	3/7/12
3	4/25/12
4	5/08/12

SHEET
2A
OF
10



PROPOSED HOME DESIGNS
SCALE: 1" = 10'

GRAPHIC SCALE
0 5 10 20
(IN FEET)
1 INCH = 10 FEET



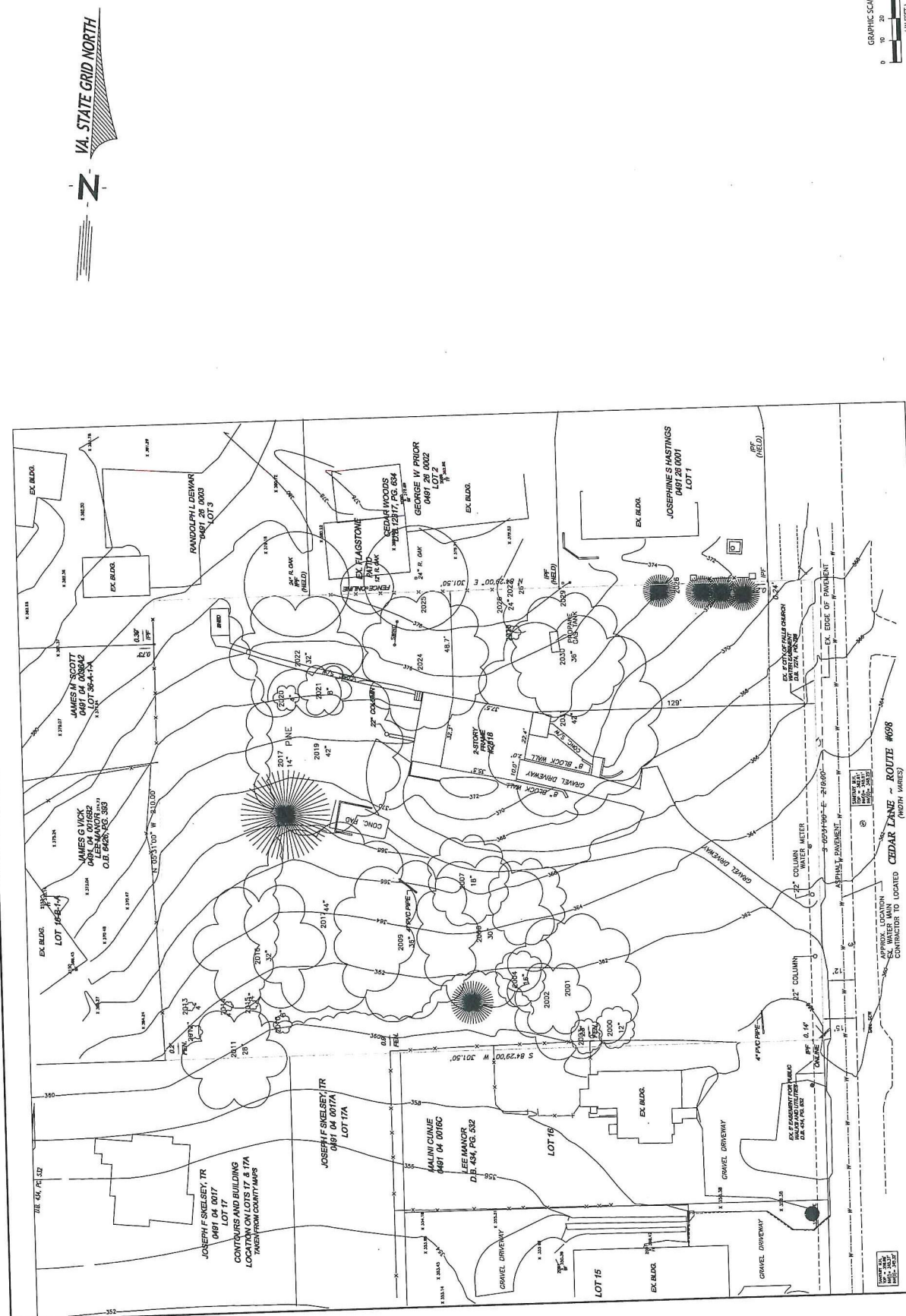
GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 INCH = 20 FEET

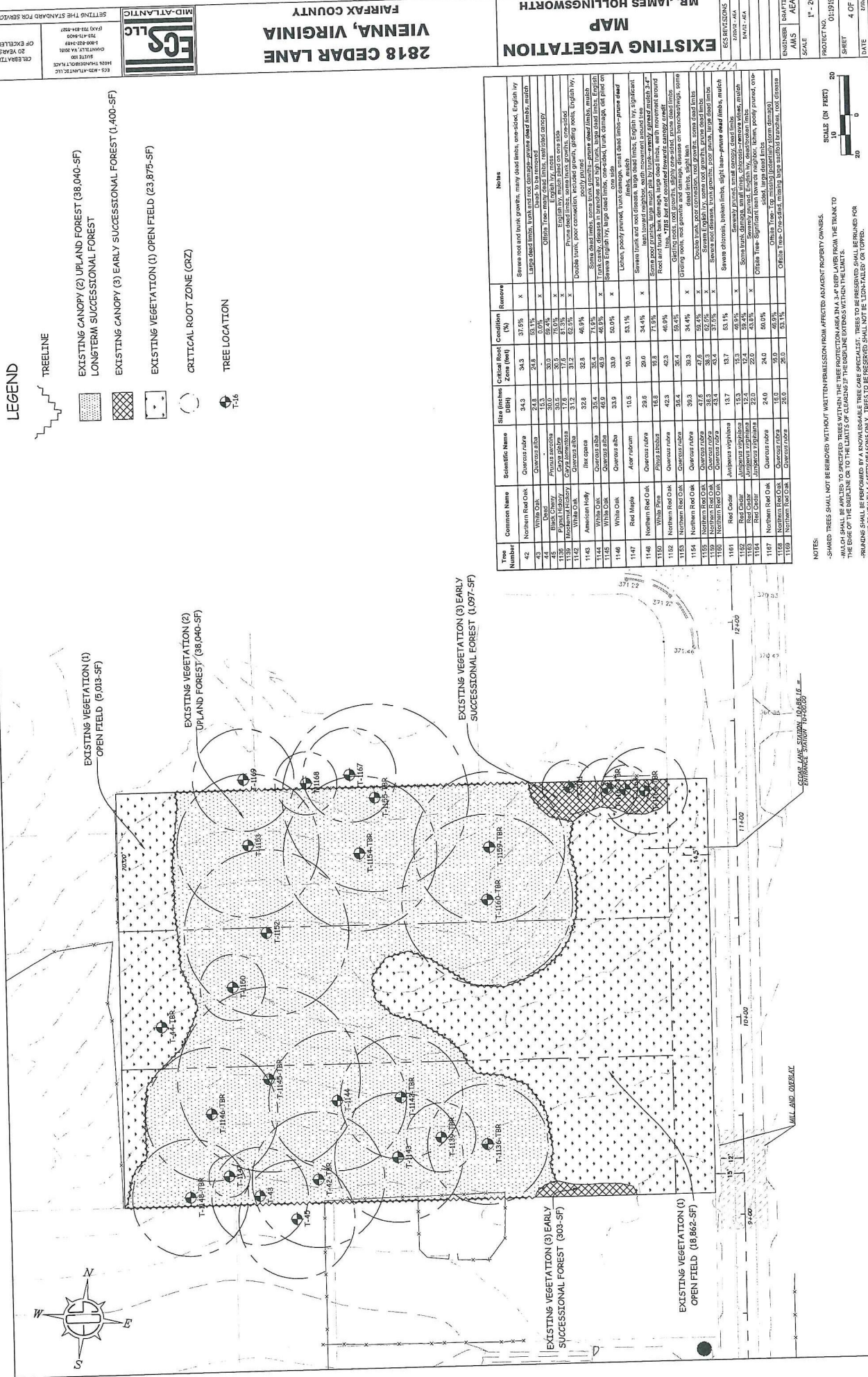
PROPOSED HOUSE LOCATIONS
SCALE: 1" = 20'

No.	DATE	DESCRIPTION
1.	11/21/12	NEW ENGINEER
2.	7/12/12	Address Staff Comments for reevaluation
3.	4/25/12	Address Staff Comments for reevaluation
4.	5/08/12	Address Staff Comments for reevaluation

EXISTING CONDITIONS PLAN
GENERALIZED DEVELOPMENT PLAN
HOLLINGSWORTH PROPERTY
PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA

 <p>12 Engineers, Inc. Professional Engineering Firm 12000 Highway 330 Chesley, Virginia</p>	<p>703.341.1541 (office) 703.341.1544 (fax) www.12engineers.com</p>		<p>DATE: November 2011 SHEET: 1 OF 2 CONTOUR INT. # = 2 PLAN # = 14-07</p>
	<p>PLAN DATE: 05/01/2008 PLAN DATE: 11/20/2010 15001/2 15002/2 15003/2</p>		





Tree Number	Common Name	Scientific Name	Size (inches DBH)	Critical Root Zone (feet)	Condition (%)	Remove	Notes
42	Northern Red Oak	<i>Quercus rubra</i>	34.3	34.3	37.5%	X	Severe root and trunk growth, many dead limbs, one-sided, English ivy
43	White Oak	<i>Quercus alba</i>	24.8	24.8	81.0%		Severe root and trunk growth, many dead limbs, one-sided, English ivy
44	White Oak	<i>Quercus alba</i>	15.3	-	0.0%	X	Large dead limbs, trunk and root damage-poor dead limbs, much
45	Black Cherry	<i>Prunus serotina</i>	30.0	30.0	70.0%		Large dead limbs, trunk and root damage-poor dead limbs, much
116	Pink Shrub	<i>Prunus serotina</i>	30.0	30.0	70.0%		Large dead limbs, trunk and root damage-poor dead limbs, much
117	White Oak	<i>Quercus alba</i>	31.2	31.2	81.5%	X	English ivy, many dead limbs, trunk and root damage
1142	White Oak	<i>Quercus alba</i>	31.2	31.2	52.5%	X	English ivy, many dead limbs, trunk and root damage
1143	American Holly	<i>Ilex opaca</i>	32.8	32.8	46.0%	X	Double trunk, poor connection, included growth, girdling roots, English ivy
1144	White Oak	<i>Quercus alba</i>	35.4	35.4	71.5%		poorly pruned
1145	White Oak	<i>Quercus alba</i>	48.9	48.9	83.0%		Severe root and trunk growth, one-sided
1146	White Oak	<i>Quercus alba</i>	33.9	33.9	83.0%		Trunk cavity, damage to limbs and high trunk, large dead limbs, much
1147	Red Maple	<i>Acer rubrum</i>	10.5	10.5	53.1%		Severe English ivy, large dead limbs, one-sided, trunk damage, on limb on
1148	Northern Red Oak	<i>Quercus rubra</i>	29.6	29.6	34.4%	X	Severe English ivy, large dead limbs, one-sided, trunk damage, on limb on
1150	White Oak	<i>Quercus alba</i>	16.8	16.8	71.5%		Limbs, poorly pruned, trunk damage, small dead limb-poor dead
1151	White Oak	<i>Quercus alba</i>	42.3	42.3	46.0%	X	Limbs, poorly pruned, trunk damage, small dead limb-poor dead
1152	Northern Red Oak	<i>Quercus rubra</i>	36.4	36.4	59.4%		Some poor pruning, large dead limbs, trunk damage, small dead limb-poor dead
1153	Northern Red Oak	<i>Quercus rubra</i>	39.3	39.3	34.4%	X	Root and trunk growth, trunk damage, small dead limb-poor dead
1154	Northern Red Oak	<i>Quercus rubra</i>	47.6	47.6	59.4%	X	Root and trunk growth, trunk damage, small dead limb-poor dead
1155	Northern Red Oak	<i>Quercus rubra</i>	38.3	38.3	62.5%	X	Girdling roots, root growth, slight cavity, some dead limbs
1156	Northern Red Oak	<i>Quercus rubra</i>	43.4	43.4	37.5%	X	Girdling roots, root growth, slight cavity, some dead limbs
1157	Northern Red Oak	<i>Quercus rubra</i>	43.4	43.4	37.5%	X	Girdling roots, root growth, slight cavity, some dead limbs
1161	Red Cedar	<i>Juniperus virginiana</i>	13.7	13.7	53.1%	X	Severe English ivy, many dead limbs, trunk and root damage
1162	Red Cedar	<i>Juniperus virginiana</i>	15.3	15.3	59.4%	X	Severe English ivy, many dead limbs, trunk and root damage
1163	Red Cedar	<i>Juniperus virginiana</i>	22.0	22.0	43.0%	X	Severe English ivy, many dead limbs, trunk and root damage
1164	Red Cedar	<i>Juniperus virginiana</i>	24.0	24.0	50.0%	X	Severe English ivy, many dead limbs, trunk and root damage
1167	Northern Red Oak	<i>Quercus rubra</i>	24.0	24.0	43.0%	X	Severe English ivy, many dead limbs, trunk and root damage
1168	Northern Red Oak	<i>Quercus rubra</i>	19.0	19.0	46.0%	X	Severe English ivy, many dead limbs, trunk and root damage
1169	Northern Red Oak	<i>Quercus rubra</i>	25.0	25.0	53.1%	X	Severe English ivy, many dead limbs, trunk and root damage

NOTES:
-SHARED TREES SHALL NOT BE REMOVED WITHOUT WRITTEN PERMISSION FROM AFFECTED ADJACENT PROPERTY OWNERS.
-MULCH SHALL BE APPLIED TO SPECIFIED TREES WITHIN THE TREE PROTECTION AREA IN A 4" DEEP LAYER FROM THE TRUNK TO THE EDGE OF THE OUTLINE OR TO THE CURB OR CURB OF GRADING IF THE ROOT LINE EXTENDS WITHIN THE LIMITS.
-RUNNINGS SHALL BE PERFORMED BY A KNOWN EROSION TREE CARE SPECIALIST. TREES TO BE PRESERVED SHALL BE MARKED FOR CLEARANCE ON HEALTH & SAFETY REASONS ONLY. TREES TO BE REMOVED SHALL NOT BE "LION TAIL" OR TOPPED.

PROJECT NO.	01:19192
SHEET	4 OF 10
DATE	2/20/12

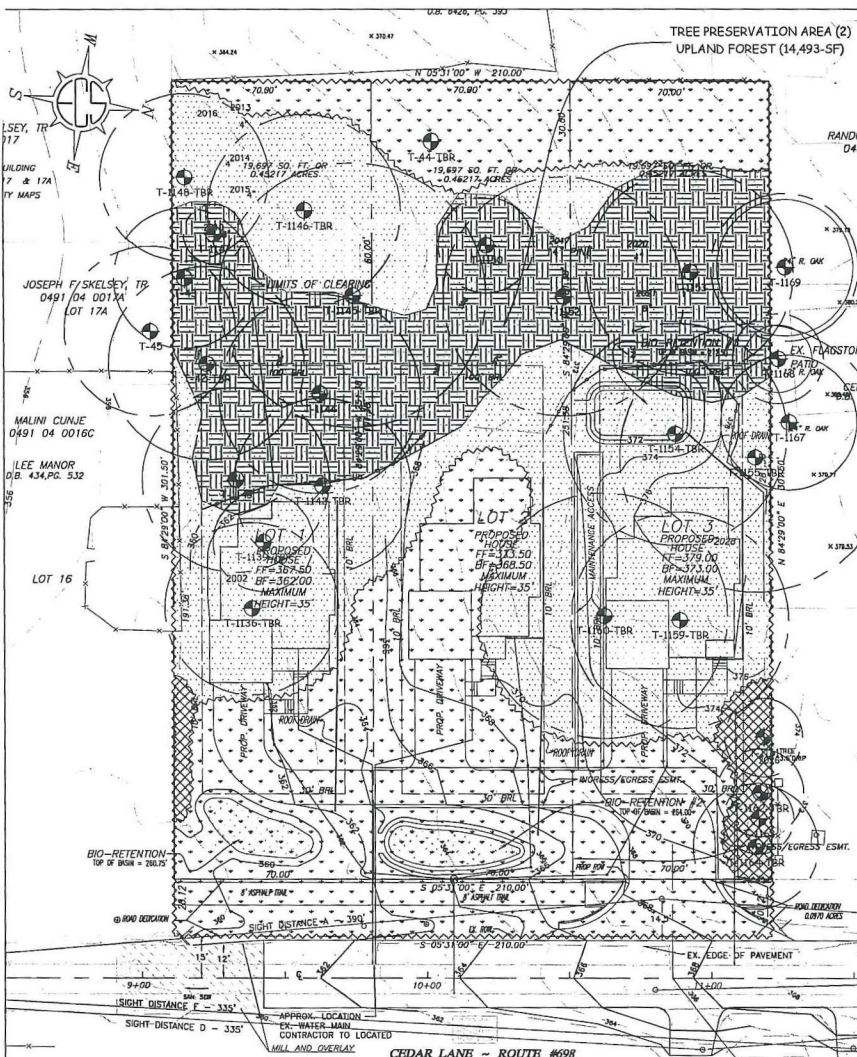


Table 12.10 - 10-Year Tree Canopy Calculation Worksheet

Step		Totals
A. Tree Preservation Target & Statement		
A1 Tree Preservation Target calculations and statement		
B. Tree Canopy Requirement		
B1	Gross Site Area =	63,162.0
B2	Subtract area dedicated to parks, road frontage (road dedication) =	4,225.0
B3	Subtract area of exemptions =	0.0
B4	Adjusted gross site area =	58,937.0
B5	Identify site's zoning and/or use =	R-4
B6	Percentage of 10-year canopy required =	29%
B7	Area of 10-year canopy required =	14,734
B8	Modification of 10-year Tree Canopy Requirement Requested?	No
B9	If B8 is yes, list plan sheet where modification is located	N/A
C. Tree Preservation		
C1	Tree Preservation Target Area =	8,803.8
C2	Total canopy area meeting standards of § 12-0400 =	14,493.0
C3	D2 x 1.5 =	18,110.3
C4	Total canopy area provided by unique or valuable forest/woodland communities =	0.0
C5	C4 x 1.5 =	0.0
C6	Total of canopy area provided by Heritage, Memorial, Specimen, or Street Trees =	0.0
C7	C6 x 1.5 =	0.0
C8	Canopy area of trees within Resource Protection Areas and 100-year floodplains =	0.0
C9	C8 x 1.0 =	0.0
C10	Total of C3, C5, C7, and C9 =	18,116
D. Tree Planting		
D1	Area of canopy to be met through tree planting =	1,215.0
D2	Area of canopy planted for air quality benefits =	0.0
D3	D2 x 1.5 =	0.0
D4	Area of canopy planted for energy conservation =	0.0
D5	D4 x 1.5 =	0.0
D6	Area of canopy planted for water quality benefits =	0.0
D7	D6 x 1.5 =	0.0
D8	Area of canopy planted for wildlife benefits =	0.0
D9	D8 x 1.5 =	0.0
D10	Area of canopy provided by native trees =	0.0
D11	D10 x 1.5 =	0.0
D12	Area of canopy provided by improved cultivars and varieties =	0.0
D13	D12 x 1.5 =	0.0
D14	Area of canopy provided through tree seedlings =	1,215.0
D15	Area of canopy provided through native shrubs or woody seed mix =	0.0
D16	Percentage of 14 represented by D15 (must be less than 33%) =	0.0%
D17	Total of canopy area provided through tree planting =	1,215
D18	Is an offsite planting relief requested?	No
D19	Tree Bank or Tree Fund?	No
D20	Canopy area requested to be provided through offsite banking or tree fund?	\$0.0
D21	Amount to be deposited into the Tree Preservation and Planting Fund =	\$0.0
E. Total of 10-year Tree Canopy Provided		
E1	Total of canopy area provided through tree preservation =	18,116
E2	Total of canopy area provided through tree planting =	1,215
E3	Total of canopy area provided through offsite mechanism =	0
E4	Total of 10-year Tree Canopy Provided =	19,331

JOSEPHINE S HASTINGS
0491 26 0001
LOT 1

TREE PRESERVATION & CANOPY CALCULATIONS

GROSS SITE AREA	1.45 AC	63,162 SF
ADJUSTED SITE AREA (TOTAL ROAD DEDICATION)		58,937 SF
MULTIPLY PERCENT REQUIRED (ZONED R4)		29%
EQUALS TREE COVER TO BE PROVIDED		14,734 SF
EXISTING TREES TO BE PRESERVED		14,493 SF
PROPOSED CREDIT BY PLANTING		1,215 SF
HAS THE TREE PRESERVATION TARGET BEEN MET?	YES	
ADJUSTED CANOPY COVER PER SECTION 12-0200		18,116 SF
TOTAL TREE COVER PROVIDED	32.6%	19,331 SF

Table 12.3 - Tree Preservation Target Calculations & Statement

A	Pre-development area (#) of existing tree canopy (From Existing Vegetation Map) =	39,440.0
B	Percentage of gross site area covered by existing tree canopy =	59.6%
C	Percentage of 10-year tree canopy required for site per zoning =	29%
D	Percentage of the 10-year tree canopy requirement that should be met through preservation =	59.6%
E	Proposed percentage of canopy requirement that will be met through tree preservation =	205.8%
F	Has the Tree Preservation Target minimum been met?	YES
G	If no for line F, provide sheet number where deviation request is located	N/A
H	If step G requires a narrative it shall be prepared and attached	N/A

LEGEND

- TREELINE
- EXISTING CANOPY (2) UPLAND FOREST (38,040-SF)
LONGTERM SUCCESSIONAL FOREST
- EXISTING CANOPY (3) EARLY SUCCESSIONAL FOREST (1,400-SF)
- EXISTING VEGETATION (1) OPEN FIELD (23,875-SF)
- TREE PRESERVATION AREA (2) UPLAND FOREST (14,493-SF)
LONGTERM SUCCESSIONAL FOREST
- MULCH, 3-4" DEEP BARK OR HARDWOOD CHIPS
- CRITICAL ROOT ZONE (CRZ)
- TREE LOCATION
- TREE PROTECTION FENCING & ROOT PRUNING

INVASIVE SPECIES CONTROL NARRATIVE:

1. ANY APPLICATION OF ENVIRONMENTALLY SENSITIVE HERBICIDES SHALL BE APPLIED BY A VIRGINIA CERTIFIED APPLICATOR OR REGISTERED TECHNICIAN.
2. ENGLISH IVY: REMOVE FROM TREES BY CUTTING ALL VINES AT GROUND LEVEL. VINES SHOULD BE CUT AGAIN SEVERAL FEET UP THE TRUNK. PAUL THE CUT SECTION OF IVY BUT CARE SHOULD BE TAKEN NOT TO STRIP THE BARK OF THE TREE. PULL GROUND IVY BACK A FEW FEET FROM THE BASE OF THE TREE TO SLOW REGROWTH UP THE TREE TRUNK. REMOVE GROUND IVY BY HAND PULLING, CUTTING AND MULCHING OVER TOP, AND/OR APPLYING A SYSTEMIC HERBICIDE LIKE TRICLOPYR TO LEAVES OR FRESHLY CUT LARGE STEMS. RETREATMENT MAY BE NECESSARY FOR COMPLETE ERADICATION.
3. JAPANESE HONEYSUCKLE: SHALL BE REMOVED BY HAND TO MINIMIZE SITE DISTURBANCE. IN THE GROWING SEASON, AN APPLICATION OF AN ENVIRONMENTALLY SENSITIVE HERBICIDE MAY BE APPLIED BY A VIRGINIA CERTIFIED APPLICATOR. TO REDUCE DAMAGE TO NON-TARGET PLANTS, HERBICIDES SUCH AS GLYPHOSATE AND TRICLOPYR MAY BE APPLIED TO FOLIAGE BY A CERTIFIED APPLICATOR IN AUTUMN, SINCE JAPANESE HONEYSUCKLE CONTINUES TO PHOTOSYNTHESIZE AFTER MANY OTHER SPECIES LOSE THEIR LEAVES.
4. THE ENGLISH IVY REMNANTS SHALL BE BAGGED AND REMOVED FROM THE PROJECT SITE.
5. INVASIVE SPECIES CONTROL: SHALL BE CONDUCTED UNTIL THE PLANTS NOTED ABOVE ARE NO LONGER IN ABUNDANCE OR UNTIL BOND RELEASE, WHICHEVER IS LATER.

Tree Number	Common Name	Scientific Name	Size (inches DBH)	Critical Root Zone (feet)	Condition (%)	Remove	Notes
42	Northern Red Oak	Quercus rubra	34.3	34.3	37.5%	x	Severe rot and trunk growth, many dead limbs, one-sided, English ivy
43	White Oak	Quercus alba	24.6	24.6	53.1%	x	Large dead limbs, trunk and root damage-prune dead limbs, mulch
44	Dead		15.3	-	0.0%	x	Dead-to be removed
45	Black Cherry	Prunus serotina	30.0	30.0	59.4%	x	Offsite Tree-many dead limbs, restricted canopy
1138	Playful Hickory	Carya glabra	30.5	30.5	75.0%	x	English ivy, mulch piled on one side
1139	Mockernut Hickory	Carya tomentosa	17.6	17.6	83.3%	x	English ivy, mulch piled on one side
1142	White Oak	Quercus alba	31.2	31.2	62.5%	x	Prune dead limbs, some trunk growth, one-sided
1143	American Holly	Ilex opaca	32.8	32.8	46.9%	x	Double trunk, poor connection, isolated growth, grinding roots, English ivy, poorly pruned
1144	White Oak	Quercus alba	35.4	35.4	71.9%	x	Some dead limbs, some trunk growth-prune dead limbs, mulch
1145	White Oak	Quercus alba	46.9	46.9	46.9%	x	Trunk cavity, disease in branches and high trunk, large dead limbs, English
1146	White Oak	Quercus alba	33.9	33.9	50.0%	x	Severe English ivy, large dead limbs, one-sided, trunk damage, dirt piled on one side
1147	Red Maple	Acer rubrum	10.5	10.5	53.1%	x	Lichen, poorly pruned, trunk damage, small dead limbs-prune dead limbs, mulch
1148	Northern Red Oak	Quercus rubra	29.6	29.6	34.4%	x	Severe trunk and root disease, large dead limbs, English ivy, significant lean toward neighbor, earth movement around tree
1150	White Pine	Pinus strobus	16.8	16.8	71.9%	x	Some poor pruning, large much pile by limb-remedy spread mulch 3-4"
1152	Northern Red Oak	Quercus rubra	42.3	42.3	46.9%	x	Root and trunk bark damage, large dead limbs, earth movement around tree, *TBS but not counted towards canopy credit
1153	Northern Red Oak	Quercus rubra	35.4	35.4	59.4%	x	Grinding roots, root growth, slightly one-sided, prune dead limbs
1154	Northern Red Oak	Quercus rubra	39.3	39.3	34.4%	x	Grinding roots, root growth and damage, disease on branch/twig, some dead limbs, slight lean
1155	Northern Red Oak	Quercus rubra	47.8	47.8	59.4%	x	Double trunk, poor connection, root growth, some dead limbs
1159	Northern Red Oak	Quercus rubra	38.3	38.3	62.5%	x	Severe English ivy, some root growth, prune dead limbs
1160	Northern Red Oak	Quercus rubra	43.4	43.4	37.5%	x	Severe root disease, trunk growth, poor prune, large dead limbs
1161	Red Cedar	Juniperus virginiana	13.7	13.7	53.1%	x	Severe chlorosis, broken limbs, slight lean-prune dead limbs, mulch
1162	Red Cedar	Juniperus virginiana	15.3	15.3	46.9%	x	Severely pruned, small canopy, dead limbs
1163	Red Cedar	Juniperus virginiana	24.6	24.6	53.1%	x	Some trunk damage, trunk splits, chlorosis-prune vines, mulch
1164	Red Cedar	Juniperus virginiana	22.0	22.0	43.8%	x	Severely pruned, English ivy, dead/broken limbs
1167	Northern Red Oak	Quercus rubra	24.0	24.0	50.0%	x	Offsite Tree-Significant lean towards neighbor, lichen, poorly pruned, one-sided, large dead limbs
1168	Northern Red Oak	Quercus rubra	16.0	16.0	46.9%	x	Offsite Tree-Top missing (potentially storm damage)
1169	Northern Red Oak	Quercus rubra	26.0	26.0	53.1%	x	Offsite Tree-One-sided, missing large scaffold branches, root disease

NOTES:

- SHARED TREES SHALL NOT BE REMOVED WITHOUT WRITTEN PERMISSION FROM AFFECTED ADJACENT PROPERTY OWNERS.
- BARK OR HARDWOOD CHIP MULCH SHALL BE APPLIED TO SPECIFIED TREES WITHIN THE TREE PROTECTION AREA IN A 3-4" DEEP LAYER FROM THE TRUNK TO THE EDGE OF THE OUTLINE OR TO THE LIMITS OF CLEARING IF THE OUTLINE EXISTS WITHIN THE LIMITS.
- PRUNING SHALL BE PERFORMED BY A KNOWLEDGEABLE TREE CARE SPECIALIST. TREES TO BE PRESERVED SHALL BE PRUNED FOR CLEARANCE OR HEALTH & SAFETY REASONS ONLY. TREES TO BE PRESERVED SHALL NOT BE "LION-TAILED" OR TOPPED.



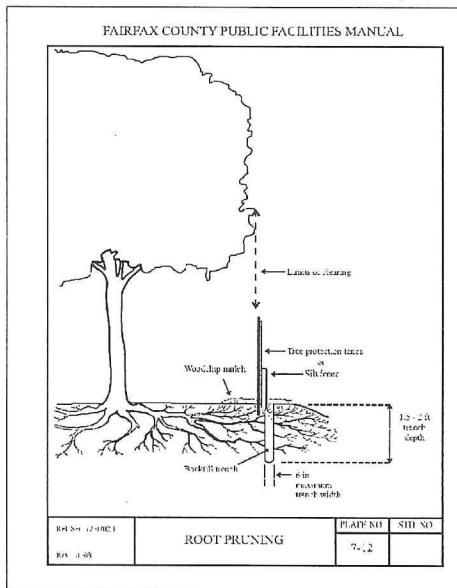
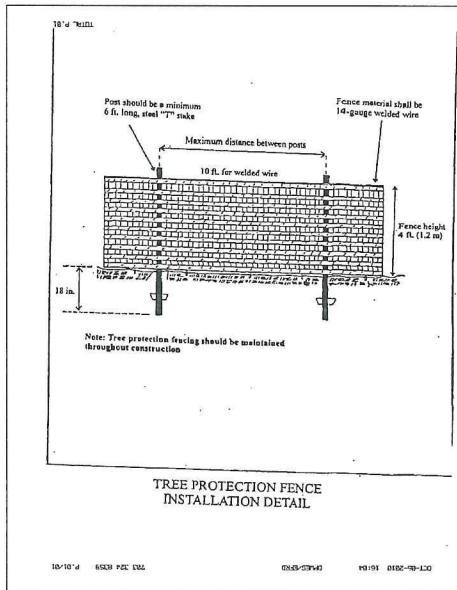
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ECS LLC
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2818 CEDAR LANE
VIENNA, VIRGINIA
FAIRFAX COUNTY

TREE PRESERVATION
& PROTECTION PLAN
MR. JAMES HOLLINGSWORTH

ECS REVISIONS
3/20/21 - AEA
5/4/21 - AEA
ENGINEER
AMS
DRAFTING
AEA
SCALE
1" = 20'
PROJECT NO.
01:19192
SHEET
4A OF 10
DATE
2/16/21



TREE CONDITION ANALYSIS

ECS Mid-Atlantic, LLC (ECS) conducted a site reconnaissance to evaluate the wooded habitat on the project site in February 2012. The undeveloped portions of the site are comprised primarily of Upland Hardwoods (i.e. Oak and Hickory species) and Softwoods (i.e. White Pine) in the Upland Forest (2) cover type, Red Cedar and evergreen shrubs in the Early Successional Forest (3) cover type, and lawn grass in the Open Field (1) cover type. The species of trees assessed near the limits of clearing are listed in the Tree Table on the Existing Vegetation Map. In addition to those species, Flowering Dogwood and Crepe Myrtle were also observed onsite.

Based on our site reconnaissance, invasive and/or noxious species (i.e.: English Ivy) are present throughout wooded areas of the project site. Invasive species located within the areas to be preserved should be removed by hand wherever practicable to minimize site disturbance. The trees onsite are in Fair/Good condition, except where otherwise noted on the EVM (i.e.: Poor or Dead). Onsite trees within 150-feet of the proposed limits of clearing meet the standards for structural integrity and health identified in § 12-0403.2A and 12-0403.2B and are identified on the Existing Vegetation Map. At the time of inspection there were poor and dead trees located within 150-feet of the proposed limits of clearing, which are identified on the Existing Vegetation Map.

In accordance with § 12-0507.E2(1), trees designated for preservation shall be protected during construction.

TREE PRESERVATION NARRATIVE

§ 12-0509.3B: Dead or potentially hazardous trees shall be removed upon their discovery if they are located within 100-feet of the proposed limits of clearing. Dead trees not within this area shall be left in place to serve as wildlife habitat. Dead or potentially hazardous trees will be removed by hand (i.e.: chainsaw) wherever practical and will be conducted in a manner that incurs the least amount of damage to surrounding trees and vegetation proposed for preservation. Felled trees shall be left in place and brush should be removed by hand. No heavy equipment shall be used within tree preservation areas.

§ 12-0509.3C: Based on the current condition of the existing wooded areas, no adverse human health risks are anticipated provided that trees which pose a hazard to human health and safety are properly removed from areas where they could pose such a risk.

§ 12-0509.3D: Invasive and/or noxious species (i.e.: English Ivy) are present throughout wooded areas of the site. Invasive species located within the areas to be preserved should be removed by hand wherever practicable to minimize site disturbance. See the previous sheet for species-specific control measures. Most of the forested areas within the tree preservation area do not contain invasive plant species at levels that endanger the long-term ecological functionality, health, and regenerative capacity of any native plant communities present onsite.

§ 12-0509.3E: The Applicant is not requesting official Specimen Tree designation for any of the large trees located onsite and is not using a multiplier for tree canopy calculations.

§ 12-0509.3F: Non-impacted Specimen trees located on and off-site shall be protected throughout all phases of construction by utilizing tree protection fencing as required by § 12-0506.2D(1).

§ 12-0509.3G: Root pruning shall be conducted along the proposed limits of clearing and grading adjacent to the wooded habitat to be preserved and along property boundaries where the CRZ of off-site trees will be impacted. Locations of root pruning and tree protection fencing are shown on the Tree Preservation & Protection Plan.

§ 12-0509.3H: No trees will be transplanted as part of the proposed construction activities.

§ 12-0509.3I: Tree protection fencing and signage shall be placed subsequent to the staking of the limits of clearing in the field prior to construction in accordance with current Fairfax County ordinances.

§ 12-0509.3J: No work shall occur within the areas to be protected. Onsite trees within the limits of clearing and grading will be removed. No trees outside this area shall be removed unless indicated on the plan. Trees in preservation areas indicated on the plan to be removed shall be removed by hand. Dead or hazardous trees within this area may be limbed or topped, rather than removing the entire tree and left as snags.

§ 12-0509.3K: There are no known proffer conditions which would require a tree inventory, tree condition, tree valuation or tree bonding information.

MONITORING SCHEDULE:

-ALL REMOVAL OF VEGETATION AND DEMOLITION OF STRUCTURES SHALL BE PERFORMED IN THE PRESENCE OF A CERTIFIED ARBORIST REPRESENTING THE APPLICANT

-THE PROJECT ARBORIST SHALL MONITOR THE SITE WEEKLY DURING PHASE I OF CONSTRUCTION TO ENSURE THAT TREE PRESERVATION FENCING REMAINS INTACT AND TREES TO BE PRESERVED REMAIN UNDAMAGED AND DO NOT DECLINE IN HEALTH DUE TO CONSTRUCTION ACTIVITIES. THE PROJECT ARBORIST SHALL PROVIDE MONTHLY MONITORING AFTER THE COMPLETION OF PHASE I OF CONSTRUCTION THROUGH PROJECT COMPLETION.

-THE PROJECT ARBORIST SHALL INFORM UFMD, DPWES, OF THE OBSERVED CONDITIONS DURING MONITORING ACTIVITIES BY LETTER FOLLOWING EACH VISIT.

PROFFERED CONDITIONS

TREE PRESERVATION

The Applicant shall submit a Tree Preservation Plan and Narrative as part of the first and all subsequent site plan submissions. The preservation plan and narrative shall be prepared by a Certified Arborist or a Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES.

The tree preservation plan shall include a tree inventory that identifies the location, species, critical root zone, size, crown spread and condition analysis percentage rating for all individual trees to be preserved, as well as all on and off-site trees, living or dead with trunks 12 inches in diameter and greater (measured at 4.5 feet from the base of the trunk or as otherwise allowed in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture) located within 25 feet to either side of the limits of clearing and grading. The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside the limits of clearing and grading shown on the GDP and those additional areas in which trees can be preserved as a result of final engineering. The tree preservation plan and narrative shall include all items specified in PFM 12-0507 and 12-0509. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization, and others as necessary, shall be included in the plan.

TREE PRESERVATION WALK-THROUGH

The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's certified arborist or landscape architect shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump grinding machine in a manner causing as little disturbance as possible to the adjacent trees and associated understory vegetation and soil conditions.

LIMITS OF CLEARING AND GRADING

The Applicant shall conform strictly to the limits of clearing and grading as shown on the GDP, subject to allowances specified in these proffered conditions and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in the areas protected by the limits of clearing and grading as shown on the GDP they shall be located in the least disruptive manner necessary as determined by the UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for areas protected by the limits of clearing and grading that must be disturbed for such trails or utilities.

TREE PRESERVATION FENCING

All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the demolition, and phase I & II erosion and sediment control sheets, as may be modified by the "Root Pruning" proffer below.

All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. The installation of all tree protection fencing shall be performed under the supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by the UFMD, DPWES.

ROOT PRUNING

The Applicant shall root prune, as needed to comply with the tree preservation requirements of these proffers. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the subdivision plan submission. The details for these treatments shall be reviewed and approved by the UFMD, DPWES, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:

- Root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches
- Root pruning shall take place prior to any clearing and grading, or demolition of structures.
- Root pruning shall be conducted under the supervision of a certified arborist.
- An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete.

DEMOLITION OF EXISTING STRUCTURES

The demolition of all existing features and structures within areas protected by the limits of clearing and grading areas shown on the GDP shall be done by hand without heavy equipment and conducted in a manner that does not impact individual tree and/or groups of trees that are to be preserved as reviewed and approved by the UFMD, DPWES.

SITE MONITORING

During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as proffered and as approved by the UFMD. The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist to monitor all construction and demolition work and tree preservation efforts in order to ensure conformance with all tree preservation proffers, and UFMD approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES.

ECS Mid-Atlantic, LLC 1800-822-4489 1800-822-4489 FAX 703-441-5827		CREATING 20 YEARS OF EXCELLENCE
ECS Mid-Atlantic, LLC		
2818 CEDAR LANE VIENNA, VIRGINIA FAIRFAX COUNTY		
TREE PRESERVATION NARRATIVES MR. JAMES HOLLINGSWORTH		
ECS REVISIONS		
2/20/12 - AEA		
5/4/12 - AEA		
ENGINEER AMS	DRAFTING AEA	
SCALE NTS		
PROJECT NO. 01-19192		
SHEET 48 OF 10		
DATE 2/20/12		



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4C
OF
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ALAN BA COONT, VIRGINIA

12/12

12/12

Schedule A Plant Schedule
ROLLINGSWORTH PROPERTY, FAIRFAX COUNTY, VIRGINIA

Project Name	Project Type	Project Location	Project Status	Project Budget	Project Manager	Project Start Date	Project End Date	Project Duration	Project Progress	Project Risk	Project Notes
Project A	Construction	New York	In Progress	\$1,000,000	John Doe	2023-01-01	2023-12-31	12 Months	75%	Low	Project A is on track and within budget.
Project B	Software Development	San Francisco	Completed	\$500,000	Jane Smith	2022-06-01	2022-11-30	6 Months	100%	Medium	Project B was completed ahead of schedule.
Project C	Research & Development	London	On Hold	\$2,500,000	Dr. Emily White	2023-03-01	2024-02-28	12 Months	20%	High	Project C is on hold due to budget constraints.
Project D	Marketing Campaign	Los Angeles	Planning	\$300,000	Mark Johnson	2024-01-01	2024-06-30	6 Months	10%	Low	Project D is in the planning phase.
Project E	Infrastructure Upgrade	Chicago	Completed	\$1,200,000	Robert Brown	2021-09-01	2022-08-31	12 Months	100%	Medium	Project E was completed successfully.
Project F	Product Launch	Seattle	In Progress	\$750,000	Alice Green	2023-04-01	2023-10-31	7 Months	60%	Medium	Project F is progressing well.
Project G	System Integration	Phoenix	On Hold	\$900,000	David Black	2023-02-01	2023-11-30	10 Months	30%	High	Project G is on hold due to technical challenges.
Project H	Customer Service Initiative	Portland	Planning	\$400,000	Sarah Lee	2024-03-01	2024-09-30	7 Months	5%	Low	Project H is in the planning phase.
Project I	Website Redesign	San Diego	Completed	\$600,000	Michael King	2022-07-01	2022-12-31	6 Months	100%	Medium	Project I was completed on time.
Project J	Mobile App Development	San Jose	In Progress	\$1,100,000	Olivia Hall	2023-05-01	2024-01-31	9 Months	40%	Medium	Project J is in progress.
Project K	Supply Chain Optimization	San Antonio	On Hold	\$800,000	William Young	2023-01-01	2023-12-31	12 Months	15%	High	Project K is on hold due to market conditions.
Project L	Internal Audit	San Jose	Completed	\$200,000	Grace Kim	2022-08-01	2022-10-31	3 Months	100%	Low	Project L was completed successfully.
Project M	Employee Training Program	San Jose	In Progress	\$150,000	Benjamin Clark	2023-06-01	2023-12-31	7 Months	50%	Low	Project M is in progress.
Project N	Facility Renovation	San Jose	On Hold	\$350,000	Isabella Scott	2023-03-01	2023-11-30	9 Months	10%	Medium	Project N is on hold due to budget constraints.
Project O	IT Security Upgrade	San Jose	Completed	\$450,000	Ethan Adams	2022-09-01	2022-11-30	3 Months	100%	Medium	Project O was completed successfully.
Project P	Customer Feedback Analysis	San Jose	In Progress	\$100,000	Ava Baker	2023-07-01	2023-12-31	6 Months	30%	Low	Project P is in progress.
Project Q	Product Feature Development	San Jose	On Hold	\$700,000	Noah Miller	2023-02-01	2023-11-30	10 Months	25%	Medium	Project Q is on hold due to market conditions.
Project R	Marketing Campaign	San Jose	Completed	\$250,000	Charlotte Davis	2022-10-01	2022-12-31	3 Months	100%	Low	Project R was completed successfully.
Project S	System Integration	San Jose	In Progress	\$650,000	Liam Wilson	2023-04-01	2023-12-31	9 Months	45%	Medium	Project S is in progress.
Project T	Customer Service Initiative	San Jose	On Hold	\$300,000	Amelia Moore	2023-01-01	2023-11-30	11 Months	10%	Medium	Project T is on hold due to budget constraints.
Project U	Website Redesign	San Jose	Completed	\$550,000	Lucas Taylor	2022-06-01	2022-11-30	6 Months	100%	Medium	Project U was completed successfully.
Project V	Mobile App Development	San Jose	In Progress	\$950,000	Sophia Anderson	2023-05-01	2024-01-31	9 Months	35%	Medium	Project V is in progress.
Project W	Supply Chain Optimization	San Jose	On Hold	\$750,000	Benjamin Clark	2023-03-01	2023-11-30	9 Months	15%	High	Project W is on hold due to market conditions.
Project X	Internal Audit	San Jose	Completed	\$180,000	Isabella Scott	2022-08-01	2022-10-31	3 Months	100%	Low	Project X was completed successfully.
Project Y	Employee Training Program	San Jose	In Progress	\$120,000	Ethan Adams	2023-06-01	2023-12-31	7 Months	40%	Low	Project Y is in progress.
Project Z	Facility Renovation	San Jose	On Hold	\$320,000	Charlotte Davis	2023-02-01	2023-11-30	10 Months	10%	Medium	Project Z is on hold due to budget constraints.

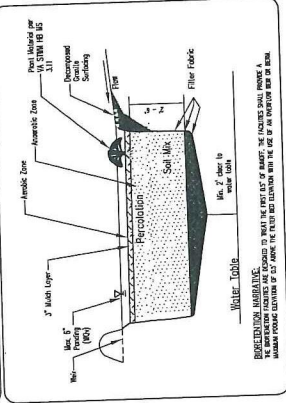


BIU=RETENTION FACILITY

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TYPICAL BIORETENTION BASIN CROSS SECTION

OFFICIAL DIGITAL SIGNATURE



BIO-RETENTION DESIGN, FACILITY #1.

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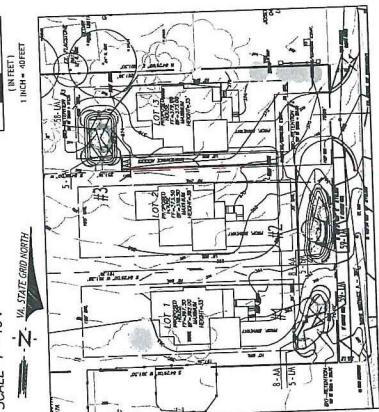
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DAILY SCHEDULE

PLANT	SUBCULTURE	LOT #1	LOT #2	LOT #3	BOTANICAL NAME
TREES -	DECIDUOUS CANOPY				
	QU	5	5	5	<i>Quercus Phellos</i>
SHRUBS / GRASSES					
	LM	59	59	59	<i>LEUCOPUS MUSSARI</i>
	AA	8	8	8	<i>Aronia Arbutifolia</i>

BIO-RETENTION FACILITY

SCALE 1"=40'



RECOMMENDED MANAGEMENT NARRATIVE

[illegible]

210 RETENTION DECISION FACILITY #2.

BIO-RETENTION DESIGN, I.

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STORMWATER INFORMATION FOR REZONING, SPECIAL EXCEPTION,

SPECIAL PERMIT AND DEVELOPMENT PLAN APPLICATIONS

- | Decision paragraph(s) (9-11, 21 & 23) | Comments | Storage | if used, dem
bapt (1) |
|---|----------|---------|--------------------------|
| 1. The following information is required under the following zoning regulations (9-11, 21 & 23):
Special permit(s) (1-11, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, | | | |

BIO-RETENTION DESIGN, FACILITY #3:

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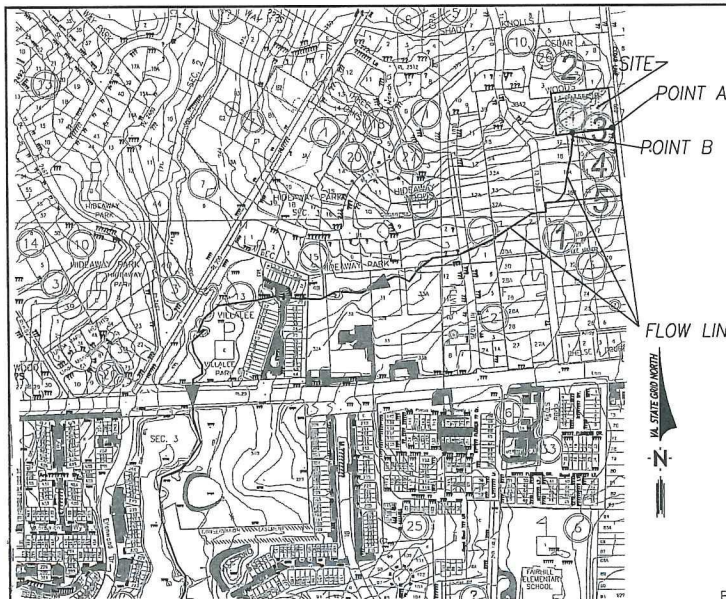
HOLLINGSWORTH PROPERTY
GENERALIZED DEVELOPMENT PLAN
 BIO-RETENTION PLAN
 PROVIDENCE DISTRICT
 FAIRFAX COUNTY, VIRGINIA

DATE: 04/06/2011
 CONTOUR INT: 2'
 SCALE: 1"=40'

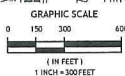
PLAN DATE: 04/06/2011
 SHEET: 5 OF 10

11/12/11
 4/08/12
 4/08/12
 4/08/12

REVISIONS



OUTFALL MAP:
SCALE 1"=300'



FLOW LINE OF OUTFALL

OUTFALL NARRATIVE:

The proposed development outfalls drainage from 3 proposed bio-retention facilities as well as uncontrolled areas on and off site. The bio-retention facilities were designed to provide water quality as well as water quantity (storm water management). The analysis for the site has been broken into 2 analysis points (Point A and B). Each point represents a location where runoff leaves the site and flows south. Runoff from these 2 points flow south and converge. The purpose of this analysis was to demonstrate that the Post-Development improvements will decrease the 2 and 10-year storm events from the Pre-Development condition at each Point. See this sheet and sheet 7 for Overall Site Stormwater Management.

Point A: The flow leaving the site from point A is collected by an existing swale running adjacent to Cedar Lane. The existing swale is inadequate to contain the runoff from the existing storm events. For this reason, the detention method has been used for the proposed development to reduce the overall site runoff between the pre- and post-development conditions leaving the site. This swale travels 350 feet south and turns west into an existing concrete ditch. Approximately 350' along the concrete ditch, runoff from Point B and offsite area converges and travels southwest (The concrete ditch and details downstream are described more in depth below).

Point B: Downstream of the property is a non defined swale which drains in the rear of parcels 13, 14, 15, 16C, 18 and 18C (Lee Manor Subdivision) This area is marked with several shade, yard storage areas. The flow is obstructed by fences, wood piles. Various improvements to the downstream properties have reduced the swale and added significant impervious areas draining to the outfall.

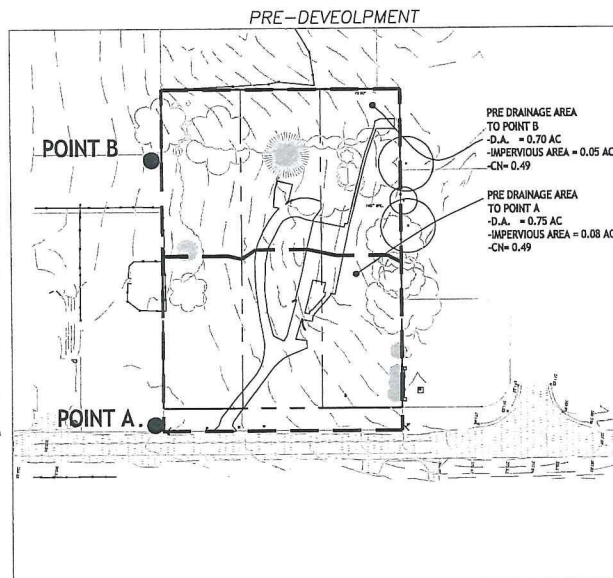
As mentioned above, flow from both Point A and Point B converge in a 30" wide by 6" deep concrete ditch along alley south of parcel 18B at the corner of Maple Lane (RL 1546). The concrete ditch drains to a box inlet at the corner of the alley and Maple Lane. It crosses Maple in a closed system (30" pipe) and is outfall into a wide swale through Lot 1 of 'Merville'. The flow is picked up in a culvert crossing Cedarcrest Road. The flow outfalls into a meandering channel approximately 3 feet wide by 3 feet deep through lot 9 of Merville. The channel runs north of a new single family project. This area has been designated as an RPA area as per Fairfax County RPA 49-3.

Flow is conveyed by a channel through a commercial development (8810-8902 Lee Highway) and is conveyed to a closed system through a Townhouse development- Villa Lee and conveyed to the flood plain. Due to the non-defined channel south of the proposed development, the Bio-Retention facilities have been designed to reduce the peak flows to the downstream property (2 and 10 yr events). Berms have been sized to pass the 100 year event.

PRE-/POST- OUTFALL SUMMARY

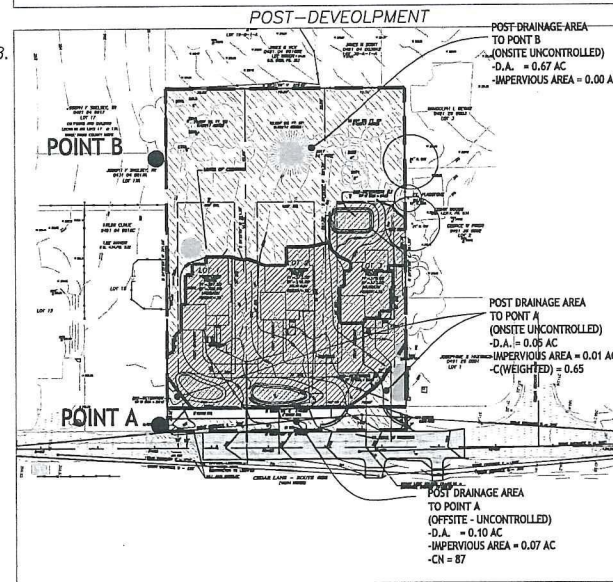
	PRE- CFS	POST- CFS
POINT A		
2-YEAR	0.765	0.352
10-YEAR	2.036	1.904
POINT B		
2-YEAR	0.714	0.520
10-YEAR	1.900	1.858

Note: See sheet 7 for Hydrographs for Point A and Point B.



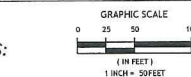
PRE DRAINAGE AREA
TO POINT B
-D.A. = 0.70 AC
-IMPERVIOUS AREA = 0.05 AC
-CN= 0.49

PRE DRAINAGE AREA
TO POINT A
-D.A. = 0.75 AC
-IMPERVIOUS AREA = 0.08 AC
-CN= 0.49

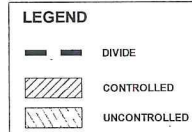


POST DRAINAGE AREA
TO POINT B
-ON SITE UNCONTROLLED
-D.A. = 0.67 AC
-IMPERVIOUS AREA = 0.00 AC

POST DRAINAGE AREA
TO POINT A
-ON SITE UNCONTROLLED
-D.A. = 0.05 AC
-IMPERVIOUS AREA = 0.01 AC
-CN (WEIGHTED) = 0.65



DRAINAGE DIVIDES:
SCALE 1"=50'



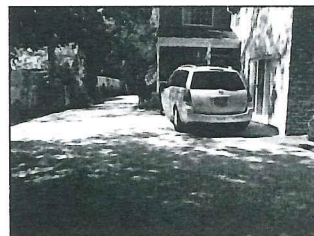
1 SWALE AREA IS COLLECTED BY CONCRETE DITCH AT ALLEY



3 NEW CONSTRUCTION DOWNSTREAM WITHOUT DEFINED SWALES OR HONORING OUTFALLS



2 LARGE AMOUNTS OF IMPERVIOUS AREAS ADDED TO DRAINAGE SHED, AND A CHANGE OF EXISTING DIVIDES



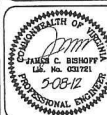
4 PAVED IMPERVIOUS AREAS DOWNSTREAM HAVE INCREASED AMOUNT OF OVERLAND FLOW



5 LARGE AMOUNTS OF OBSTRUCTIONS TO EXISTING OUTFALL STRUCTURES (SHEDS) COMMON IN SWALE AREA



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703.341.1564 (fax)
www.j2engineers.com



PLAN DATE: NOVEMBER 2011
CONTOUR INT. = 2'
SCALE: AS SHOWN

PLAN DATE: 09/16/2011
1/16/2012
2/20/12
5/03/12

STORMWATER MANAGEMENT CALCULATIONS - OVERALL
GENERALIZED DEVELOPMENT PLAN
HOLLINGSWORTH PROPERTY
PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA

NO.	DATE	DESCRIPTION	REVISIONS
1	11/16/11	REVISED	
2	11/16/11	REVISED	
3	11/16/11	REVISED	
4	11/16/11	REVISED	

SHEET
6
OF
10



PLAN
DATE: NOVEMBER 2011
CONTOUR INT. = 2'
SCALE: AS SHOWN

STORMWATER MANAGEMENT CALCULATIONS - LOT 1 GENERALIZED DEVELOPMENT PLAN PROVIDENCE DISTRICT FAIRFAX COUNTY, VIRGINIA

NO.	DATE	REVISIONS
1	11/21/11	NEW ENGINEER
2	3/17/12	Address State Comments for re-submission
3	4/15/12	Address State Comments for re-submission
4	5/15/12	Address State Comments for re-submission

SHEET
6A
OF
10

PRE-DEVELOPMENT LOT #1

2-YEAR STORM		10-YEAR STORM	
AREA 1 PRE	AREA 2 PRE	AREA 1 PRE	AREA 2 PRE
Hydrograph Peak Time to Peak Peak Flow Peak Depth Time to Base Base Flow Base Depth	Hydrograph Peak Time to Peak Peak Flow Peak Depth Time to Base Base Flow Base Depth	Hydrograph Peak Time to Peak Peak Flow Peak Depth Time to Base Base Flow Base Depth	Hydrograph Peak Time to Peak Peak Flow Peak Depth Time to Base Base Flow Base Depth

POST-DEVELOPMENT 2-YR & 10-YR LOT #1

2-YEAR STORM		10-YEAR STORM	
AREA 1 POST	AREA 2 POST	AREA 1 POST	AREA 2 POST
Hydrograph Peak Time to Peak Peak Flow Peak Depth Time to Base Base Flow Base Depth	Hydrograph Peak Time to Peak Peak Flow Peak Depth Time to Base Base Flow Base Depth	Hydrograph Peak Time to Peak Peak Flow Peak Depth Time to Base Base Flow Base Depth	Hydrograph Peak Time to Peak Peak Flow Peak Depth Time to Base Base Flow Base Depth

BMP ANALYSIS CALCULATIONS LOT #1

STEP 1 Determine the applicable area (A) and the post-development impervious cover (I) (in)

Applicable area (A) = 0.05 acres
Post-development impervious cover (I) = 0.05 acres

Structures = 0.05 acres
Other = 0.00 acres

Total = 0.05 acres

STEP 2 Determine the relative post-development impervious cover (I_{rel}) (in)

$I_{rel} = (0.05 + (0.05 \times 0.25)) \times 100 = 11.25\%$

where:
I_{rel} = relative post-development impervious cover (percent)
I = post-development impervious cover (in)
A = applicable area (acres)

STEP 3 Determine the relative post-development impervious cover (I_{rel}) (in)

$I_{rel} = (0.05 + (0.05 \times 0.25)) \times 100 = 11.25\%$

where:
I_{rel} = relative post-development impervious cover (percent)
I = post-development impervious cover (in)
A = applicable area (acres)

STEP 4 Calculate the total pollutant load removed by the proposed BMP (in)

where:
L_{total} = total pollutant load removed by proposed BMP (in)
L_{pre} = pollutant load removed by proposed BMP (in)
L_{post} = pollutant load removed by proposed BMP (in)

SWM ANALYSIS- LOT #1

PRE-DEVELOPMENT
CN = 15
1-YR Q₁₀ = 0.00 cfs
10-YR Q₁₀ = 0.00 cfs

POST-DEVELOPMENT
CN = 15
1-YR Q₁₀ = 0.00 cfs
10-YR Q₁₀ = 0.00 cfs

PEAK RATE RUNOFF REDUCTION
R₁ = (1 - (CN₁ / CN₂)) * Q₁₀ = 0.00 cfs

PEAK RATE RUNOFF REDUCTION
R₁₀ = (1 - (CN₁ / CN₂)) * Q₁₀ = 0.00 cfs

PEAK RATE RUNOFF REDUCTION
R₁₀ = (1 - (CN₁ / CN₂)) * Q₁₀ = 0.00 cfs

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PEAK RATE RUNOFF REDUCTION
R₁₀ = (1 - (CN₁ / CN₂)) * Q₁₀ = 0.00 cfs

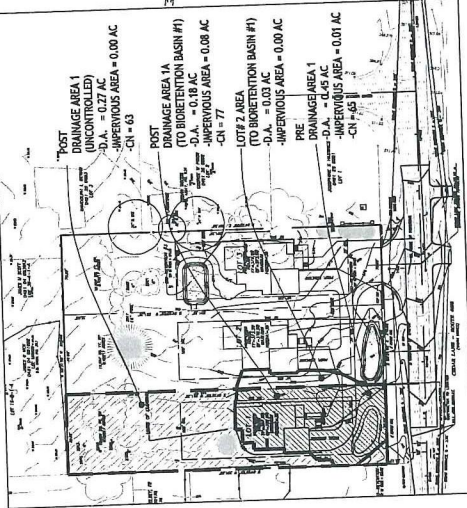
PEAK RATE RUNOFF REDUCTION
R₁₀ = (1 - (CN₁ / CN₂)) * Q₁₀ = 0.00 cfs

PEAK RATE RUNOFF REDUCTION
R₁₀ = (1 - (CN₁ / CN₂)) * Q₁₀ = 0.00 cfs

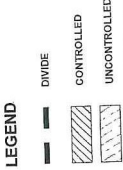
PEAK RATE RUNOFF REDUCTION
R₁₀ = (1 - (CN₁ / CN₂)) * Q₁₀ = 0.00 cfs

PEAK RATE RUNOFF REDUCTION
R₁₀ = (1 - (CN₁ / CN₂)) * Q₁₀ = 0.00 cfs

LOT #1 - PRE-DEVELOPMENT



DRAINAGE DIVIDES:
SCALE 1"=50'



SWM ANALYSIS- LOT #3

PRE-DEVELOPMENT

AREA = 0.45 acres
CN = 66
TC = 5 min
RUNOFF RATES AND VOLUMES
1-YR VOL = 0.61 cfs
2-YR FLOW = 0.622 cfs
10-YR FLOW = 1.155 cfs

Per section 6-0203.4C of the FSM:
The 1-yr volume shall be detained by the bio-retention facility.
Reg'd Volume = Post Development - Pre Development Volume
Post-development 2-yr and 10-yr flows can be reduced by using the equation below comparing the volumes from the overall Post-development and Post-development GOOD FORESTED conditions

PEAK RATE RUNOFF REDUCTION
 $R = (1 - (V/P) / (V/G)) \times 100$ (To be applied to the peak pre-development runoff)
Where:
R = the Peak Rate Runoff Factor
V/P is the Post Development Runoff Volume
V/G is the Post Development 'Good Forested' Runoff Volume

POST-DEVELOPMENT

AREA = 0.45 acres
CN = 73
TC = 5 min
RUNOFF VOLUMES (V)
1-YR VOL = 0.50 cfs
2-YR VOL = 0.514 cfs
10-YR VOL = 0.928 cfs

POST-DEVELOPMENT (FORESTED)

AREA = 0.45 acres
CN = 66
TC = 5 min
RUNOFF VOLUMES (V)
1-YR VOL = 0.61 cfs
2-YR VOL = 0.622 cfs
10-YR VOL = 1.155 cfs

PEAK RATE RUNOFF FACTOR
2-YR R = 0.825
10-YR R = 0.803

ALLOWABLE RUNOFF FLOW RATES (Q_{allow})

$Q_{allow} = (\text{PRE-DEVELOPMENT FLOW RATE}) / (\text{PEAK RATE RUNOFF FACTOR (R)})$
 $Q_{allow} 2yr = 0.679 \text{ cfs}$
 $Q_{allow} 10yr = 1.439 \text{ cfs}$

ACTUAL RUNOFF FLOW RATES (Q_{actual})

See Readings on this sheet for 2 and 10-yr flows

$Q_{actual} 2yr = 0.514 \text{ cfs} < Q_{allow} 2yr = 0.679 \text{ cfs}$ (ADEQUATE)
 $Q_{actual} 10yr = 0.928 \text{ cfs} < Q_{allow} 10yr = 1.439 \text{ cfs}$ (ADEQUATE)

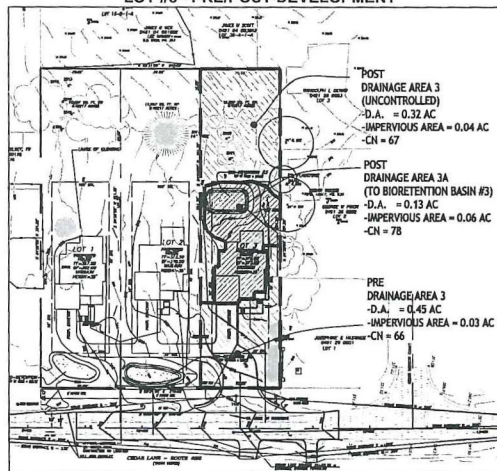
REQUIRED 1-YR VOLUME TO DETAINED (V_{reqd})

$V_{reqd} = (\text{POST-DEVELOPMENT VOLUME}) - (\text{PRE-DEVELOPMENT VOLUME})$
 $V_{reqd} = (0.50 \text{ CF}) - (0.61 \text{ CF})$

PROVIDED 1-YR VOLUME TO DETAINED (V_{provided})

See sheet 5 for Bio-retention design. Volume required is calculated by taking the volume between the elevation at the weir and the filter bed.
 $V_{provided} (\text{Basin \#3}) = 225 \text{ CF} > V_{reqd} = 205 \text{ CF}$ (ADEQUATE)

LOT #3 - PRE/POST-DEVELOPMENT



PRE-DEVELOPMENT LOT #3

2-YEAR STORM

AREA 3 PRE
Hydrograph type = DC S runoff
Time to peak = 2.0 hr
Peak runoff = 0.622 cfs
Time at base = 0.9 hr
Base runoff = 0.07 cfs
Time at center = 1.5 hr
Time at end = 2.4 hr
Duration = 2.4 hr

Hydrograph Discharge Table

Time - Outflow (min cfs)

Time (min)	Outflow (cfs)
0	0.00
10	0.00
20	0.00
30	0.00
40	0.00
50	0.00
60	0.00
70	0.00
80	0.00
90	0.00
100	0.00
110	0.00
120	0.00
130	0.00
140	0.00
150	0.00
160	0.00
170	0.00
180	0.00
190	0.00
200	0.00
210	0.00
220	0.00
230	0.00
240	0.00
250	0.00
260	0.00
270	0.00
280	0.00
290	0.00
300	0.00

2-YEAR STORM

LOT 3 POST
Hydrograph type = DC S runoff
Time to peak = 2.0 hr
Peak runoff = 0.514 cfs
Time at base = 0.9 hr
Base runoff = 0.07 cfs
Time at center = 1.5 hr
Time at end = 2.4 hr
Duration = 2.4 hr

Hydrograph Discharge Table

Time - Outflow (min cfs)

Time (min)	Outflow (cfs)
0	0.00
10	0.00
20	0.00
30	0.00
40	0.00
50	0.00
60	0.00
70	0.00
80	0.00
90	0.00
100	0.00
110	0.00
120	0.00
130	0.00
140	0.00
150	0.00
160	0.00
170	0.00
180	0.00
190	0.00
200	0.00
210	0.00
220	0.00
230	0.00
240	0.00
250	0.00
260	0.00
270	0.00
280	0.00
290	0.00
300	0.00

POST-DEVELOPMENT 2-YR & 10-YR LOT #3

10-YEAR STORM

AREA 3 PRE
Hydrograph type = DC S runoff
Time to peak = 2.0 hr
Peak runoff = 1.155 cfs
Time at base = 0.9 hr
Base runoff = 0.07 cfs
Time at center = 1.5 hr
Time at end = 2.4 hr
Duration = 2.4 hr

Hydrograph Discharge Table

Time - Outflow (min cfs)

Time (min)	Outflow (cfs)
0	0.00
10	0.00
20	0.00
30	0.00
40	0.00
50	0.00
60	0.00
70	0.00
80	0.00
90	0.00
100	0.00
110	0.00
120	0.00
130	0.00
140	0.00
150	0.00
160	0.00
170	0.00
180	0.00
190	0.00
200	0.00
210	0.00
220	0.00
230	0.00
240	0.00
250	0.00
260	0.00
270	0.00
280	0.00
290	0.00
300	0.00

10-YEAR STORM

LOT 3 POST
Hydrograph type = DC S runoff
Time to peak = 2.0 hr
Peak runoff = 0.928 cfs
Time at base = 0.9 hr
Base runoff = 0.07 cfs
Time at center = 1.5 hr
Time at end = 2.4 hr
Duration = 2.4 hr

Hydrograph Discharge Table

Time - Outflow (min cfs)

Time (min)	Outflow (cfs)
0	0.00
10	0.00
20	0.00
30	0.00
40	0.00
50	0.00
60	0.00
70	0.00
80	0.00
90	0.00
100	0.00
110	0.00
120	0.00
130	0.00
140	0.00
150	0.00
160	0.00
170	0.00
180	0.00
190	0.00
200	0.00
210	0.00
220	0.00
230	0.00
240	0.00
250	0.00
260	0.00
270	0.00
280	0.00
290	0.00
300	0.00

BMP ANALYSIS CALCULATIONS LOT #3

Determine the applicable area (A) and the post-developed impervious cover (I_{post})

STEP 1 Applicable area (A) = 0.45 acres SITE AREA LOT #3

structures = 0.05 acres
sidewalk/roadway = 0.05 acres
other = 0.00 acres

Total = 0.10 acres
 $I_{post} = (\text{total post-development impervious cover}) / A \times 100 = 22.2\%$

Determine the average land cover condition (I_{weighted}) at the existing impervious cover (I_{existing}).
Average land cover condition (I_{weighted}):
If the locality has determined land cover conditions for individual watersheds within its jurisdiction, use the watershed specific value determined by the locality as I_{weighted}.

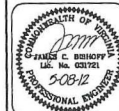
STEP 2 Determine the relative post-development pollutant load (L_{post})
 $L_{post} = [0.05 + (0.009 \times I_{post})] \times A \times 2.28$ (Equation 5-21)
where:
L_{post} = relative post-development total phosphorus load (pounds per year)
I_{post} = post-development percent impervious cover (percent expressed in whole numbers)
A = applicable area (acres)
 $L_{post} = [0.05 + (0.009 \times 22.2)] \times 0.45 \times 2.28$
 $L_{post} = 0.228 \text{ pounds per year}$

STEP 3 Determine the relative pollutant removal requirement (RR)
 $RR = 40\% \text{ of } L_{post}$
 $RR = 4\% = 0.04$
 $RR = 0.09 \text{ pounds per year}$

STEP 4 Identify best management practice (BMP) for the site.
1. Select BMP(s) and locate on the site:
BMP #1: BIORETENTION BASIN #3 (50% REMOVAL FOR 1ST 1/2" REMOVED)
BMP #2:
2. Determine the pollutant load entering the proposed BMP(s)
 $L_{ent} = [0.05 + (0.009 \times I_{post})] \times A \times 2.28$ (Equation 5-23)
where:
L_{ent} = relative post-development total phosphorus load entering proposed BMP (pounds per year)
I_{post} = post-development percent impervious cover of BMP drainage area (percent expressed in whole numbers)
A = drainage area of proposed BMP (acres)
 $L_{ent} = [0.05 + (0.009 \times 22.2)] \times 0.45 \times 2.28$
 $L_{ent} = 0.228 \text{ pounds per year}$
3. Calculate the pollutant load removed by the proposed BMP(s)
 $L_{removed} = E_{eff} \times L_{ent}$ (Equation 5-24)
where:
L_{removed} = First development pollutant load removed by proposed BMP (pounds per year)
E_{eff} = pollutant removal efficiency of BMP (expressed in decimal form)
L_{ent} = relative post-development total phosphorus load entering proposed BMP (pounds per year)
 $L_{removed} = 0.50 \times 0.228 = 0.114 \text{ pounds per year}$
4. Calculate the total pollutant load removed by the BMP(s)
 $L_{total} = L_{removed} + L_{post}$ (Equation 5-25)
where:
L_{total} = total pollutant load removed by proposed BMPs
L_{removed} = Pollutant load removed by proposed BMP NO. 1
 $L_{total} = 0.114 + 0.09 = 0.204 \text{ pounds per year}$
5. Verify compliance
 $L_{total} \geq RR$
 $0.204 \geq 0.09$ ∴ ADDITIONAL REMOVAL HAS BEEN PROVIDED BY LOT #2



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PLAN#
DATE: NOVEMBER 2011
CONTOUR INT. = 2'
SCALE: AS SHOWN

PLAN DATE
11/29/11
11/29/11
11/29/11
11/29/11

STORMWATER MANAGEMENT CALCULATIONS - LOT 3
GENERALIZED DEVELOPMENT PLAN
HOLLINGSWORTH PROPERTY
PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA

NO.	DATE	DESCRIPTION	REVISIONS
1	11/29/11	NEW INFORMATION	
2	11/29/11	Address Staff Comments for submittal	
3	11/29/11	Address Staff Comments for submittal	
4	11/29/11	Address Staff Comments for submittal	

SHEET
6C
OF
10



PLAN
 DATE: 08/08/12
 DRAWN BY: JCB
 CHECKED BY: JCB
 SCALE: (H) 1"=25' (V) 1"=10'
 PROJECT: CEDAR LANE ROUTE 653

STOPPING SIGHT DISTANCE PROFILES
GENERALIZED DEVELOPMENT PLAN
 PROVIDENCE DISTRICT
 FAIRFAX COUNTY, VIRGINIA

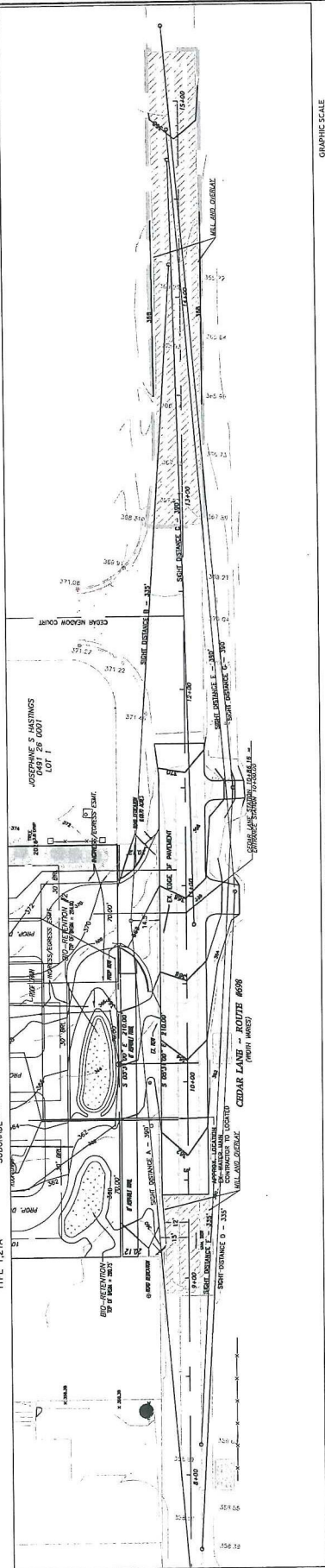
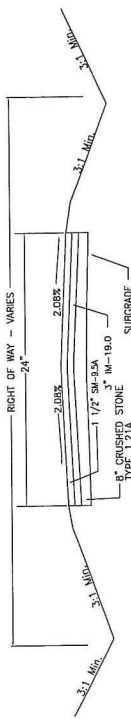
REVISIONS	
NO.	DATE
1.	11/21/11
2.	3/12/12
3.	12/12/12
4.	08/08/12

8
 OF
10
 SHEET

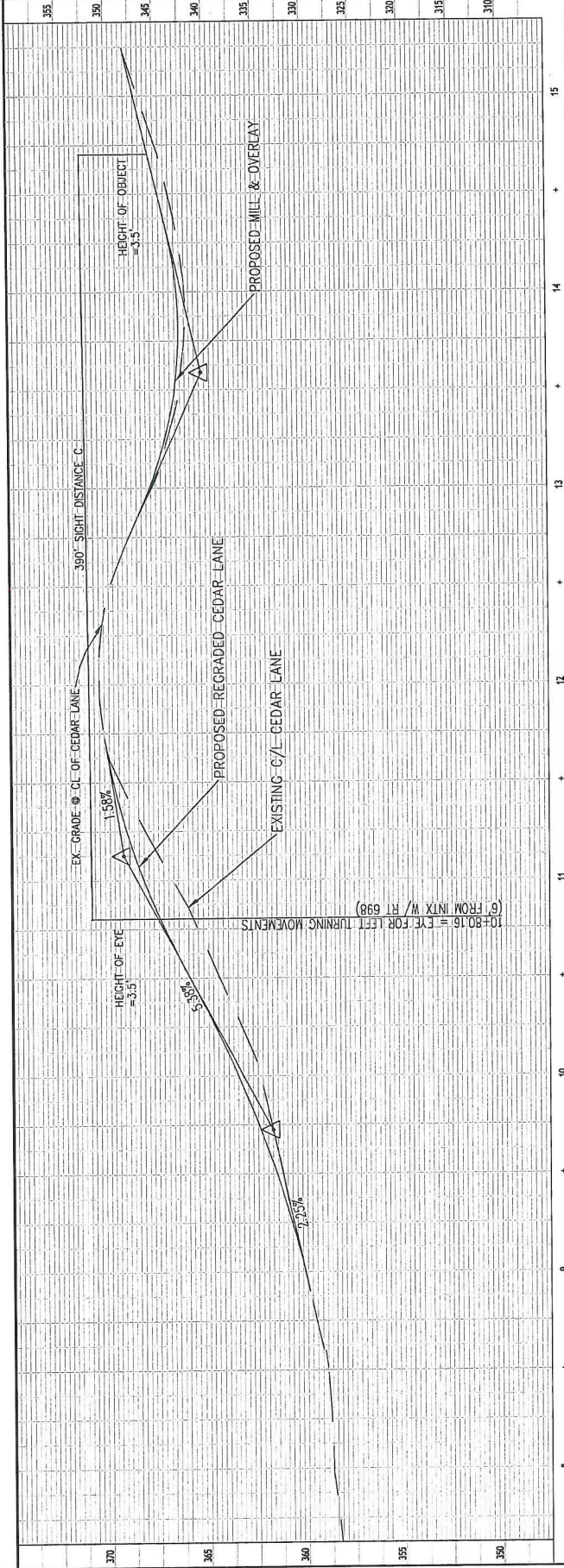
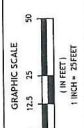
- NOTES**
1. THESE SECTIONS ARE MINIMUM SECTIONS TO BE UTILIZED WHEN THE ACTUAL CALIFORNIA BEARING RATIO (CBR) OF THE PAVEMENT SUBGRADE IS KNOWN. IF THE CBR IS UNKNOWN, THE DESIGNER SHALL BE RESPONSIBLE FOR DETERMINING THE CBR PRIOR TO PLACEMENT. ALL FINAL PAVEMENT AND BASE COURSE THICKNESSES SHALL BE DESIGNED USING AN AASHTO 1993 DESIGN METHOD. THE DESIGNER SHALL BE RESPONSIBLE FOR DETERMINING THE TRUE SUPPORT VALUES OF THE VARIOUS SOILS IN THE SUBGRADE. FINAL PAVEMENT DESIGN SHALL BE SUBMITTED DURING CONSTRUCTION AND PRIOR TO PLACEMENT.
 2. A. SLOTTING GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF THE EXISTING ROADWAY TO THE CURB AND GUTTER, TO PRECLUDE THE FORMING OF ANY FALSE GUTTERS AND/OR PONDING OF ANY WATER ON THE ROADWAY.
 3. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE OWNER OF COMPLYING WITH OTHER LOCAL STATE AND FEDERAL REQUIREMENTS.
 4. METHODS AND MATERIALS SHALL CONFORM TO VDOT STANDARDS.

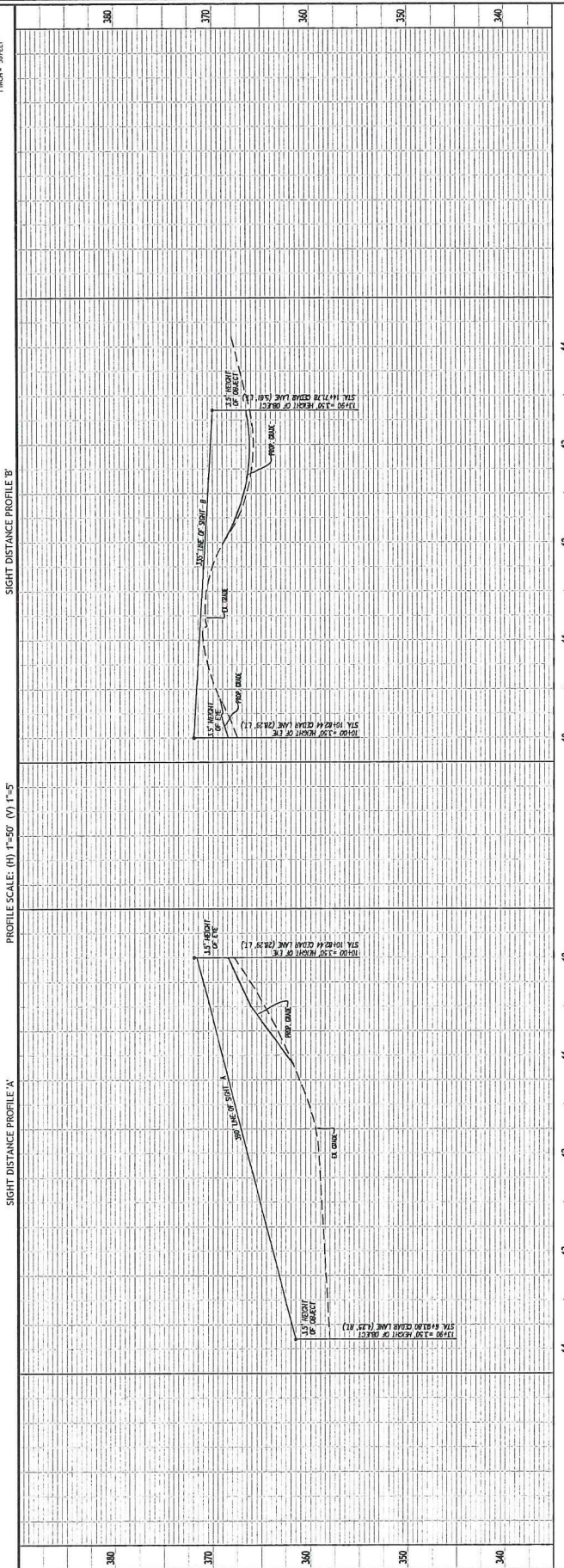
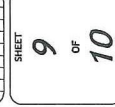
TYPICAL SECTION

NOT TO SCALE
 RIGHT OF WAY - VARIES



CEDAR LANE ROUTE 653
 Posted Speed 30 MPH, Design Speed = 35 MPH







Z Engineers, Inc.
12211 Highway 28
Fairfax County, Virginia
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703.561.1506 (fax)
www.z-engineers.com



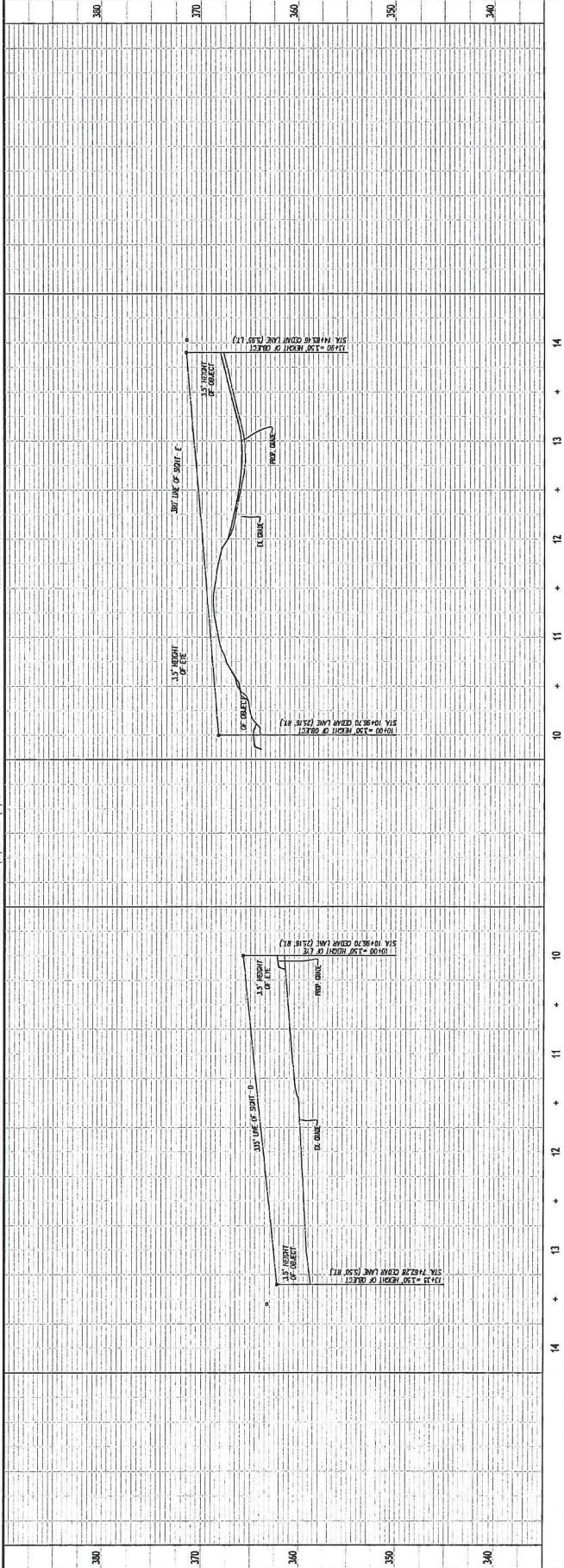
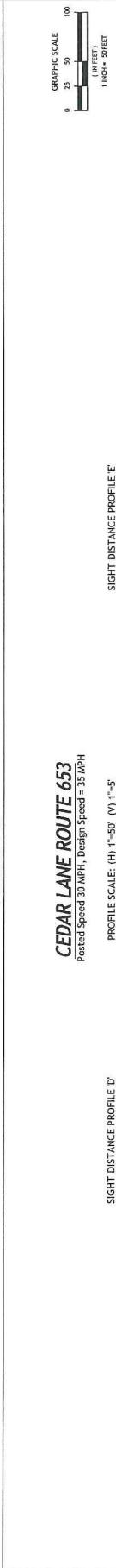
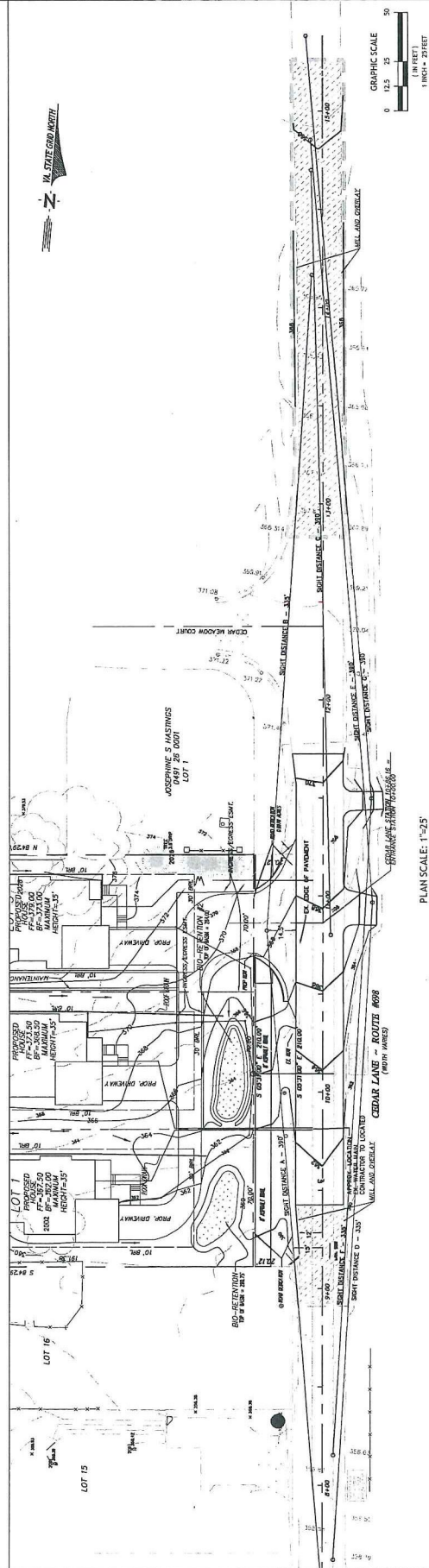
PLAN
DATE: 10/26/2011
CONTOUR INT. = 1'00"
SCALE: AS SHOWN

PLAN DATE
10/26/2011
10/26/2011
10/26/2011

GENERALIZED DEVELOPMENT PLAN
PROVIDENCE DISTRICT
FAIRFAX COUNTY, VIRGINIA
HOLLINGSWORTH PROPERTY

REVISIONS	
NO.	DESCRIPTION
1.	10/26/11 NEW ENGINEER
2.	11/12/12 Address Shift Comments for resubmission
3.	4/12/13 Address Shift Comments for resubmission
4.	5/10/13 Address Shift Comments for resubmission

SHEET
9A
OF
10





K Engineers, Inc.
 12111 Highway 101
 Suite 330
 Chesapeake, Virginia 23041
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 Fax: 757.546.1001
 www.k-engineers.com



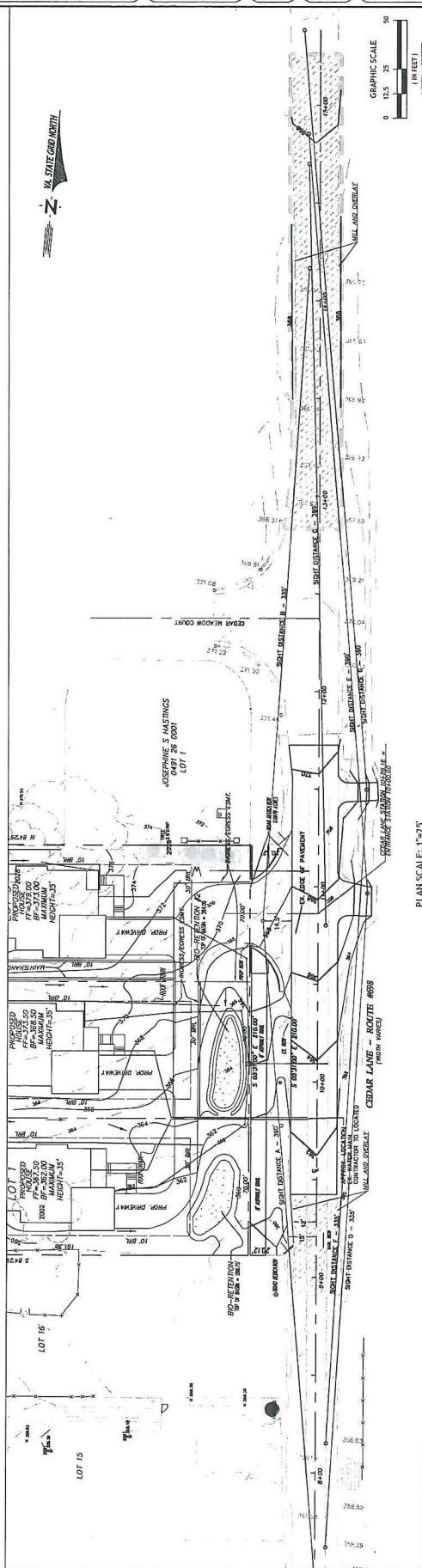
PLAN
 DATE: AUGUST 2011
 CONTOUR INT: 10'
 SCALE: 1" = 500'

PLAN DATE
 8/24/2011
 11/22/2011
 12/12/2011
 5/20/12

GENERALIZED DEVELOPMENT PLAN
 PROVIDENCE DISTRICT
 FAIRFAX COUNTY, VIRGINIA

NO.	DATE	REVISION
1.	11/12/11	NEW ENGINEER
2.	3/13/12	Address Staff Comments for re-submission
3.	4/13/12	Address Staff Comments for re-submission
4.	5/13/12	Address Staff Comments for re-submission

SHEET
9B
OF
10



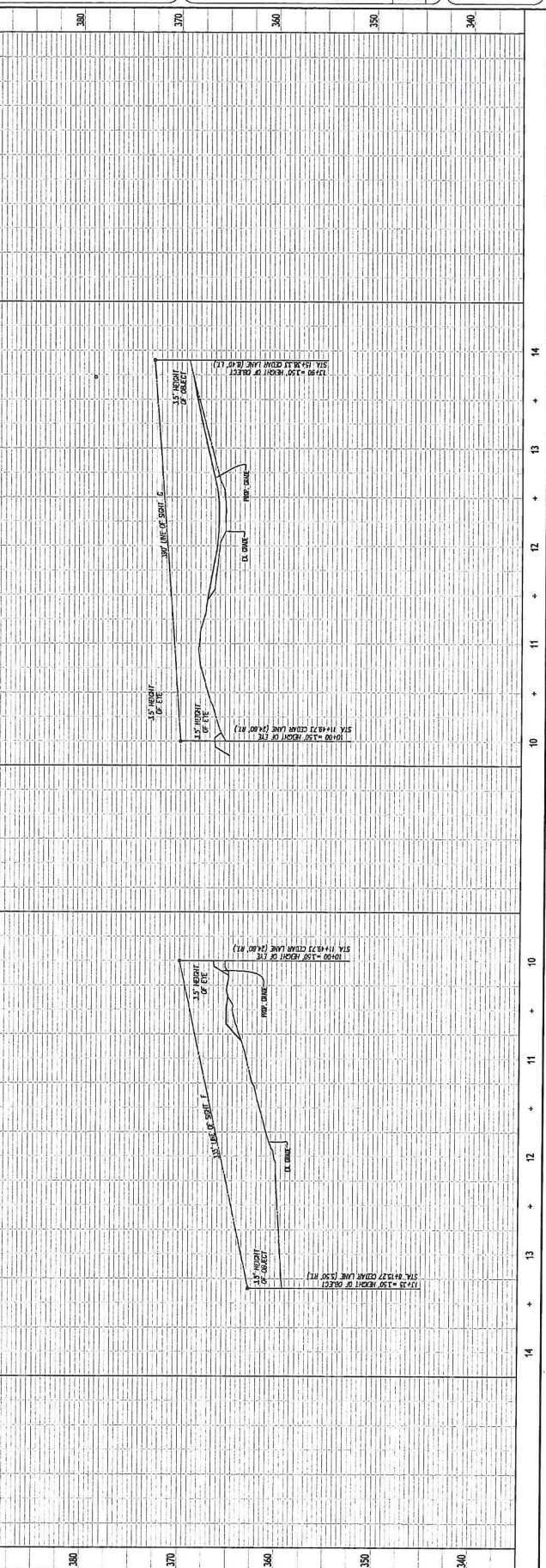
PLAN SCALE: 1"=25'

CEAR LANE ROUTE 653
 Posted Speed 30 MPH, Design Speed = 35 MPH

PROFILE SCALE: (H) 1"=50' (V) 1"=5'

SIGHT DISTANCE PROFILE 'F'

SIGHT DISTANCE PROFILE 'G'



10		OF	10
SHEET			
1.	11/13/11	NEW PROJECT	
2.	3/17/12	Address Staff Comments for resubmission	
3.	4/15/12	Address Staff Comments for resubmission	
4.	5/08/12	Address Staff Comments for resubmission	
No	DATE	DESCRIPTION	REVISIONS

DESCRIPTION OF THE APPLICATION

The applicant, James Hollingsworth, requests approval of a rezoning of approximately 1.45 acres from the R-1 District to the R-4 District. The purpose of the application is to allow subdivision of the existing land area into three lots for the development of three single family detached dwelling units, at an overall density of 2.07 dwelling units per acre (du/ac). The subject property is located at 2818 Cedar Lane, which is on the west side of Cedar Lane and is bounded by the Cedar Woods subdivision to the north, and the Lee Manor subdivision to the south and west. The site is currently developed with one single family detached structure and one accessory structure, both of which are proposed to be demolished as a part of this application.

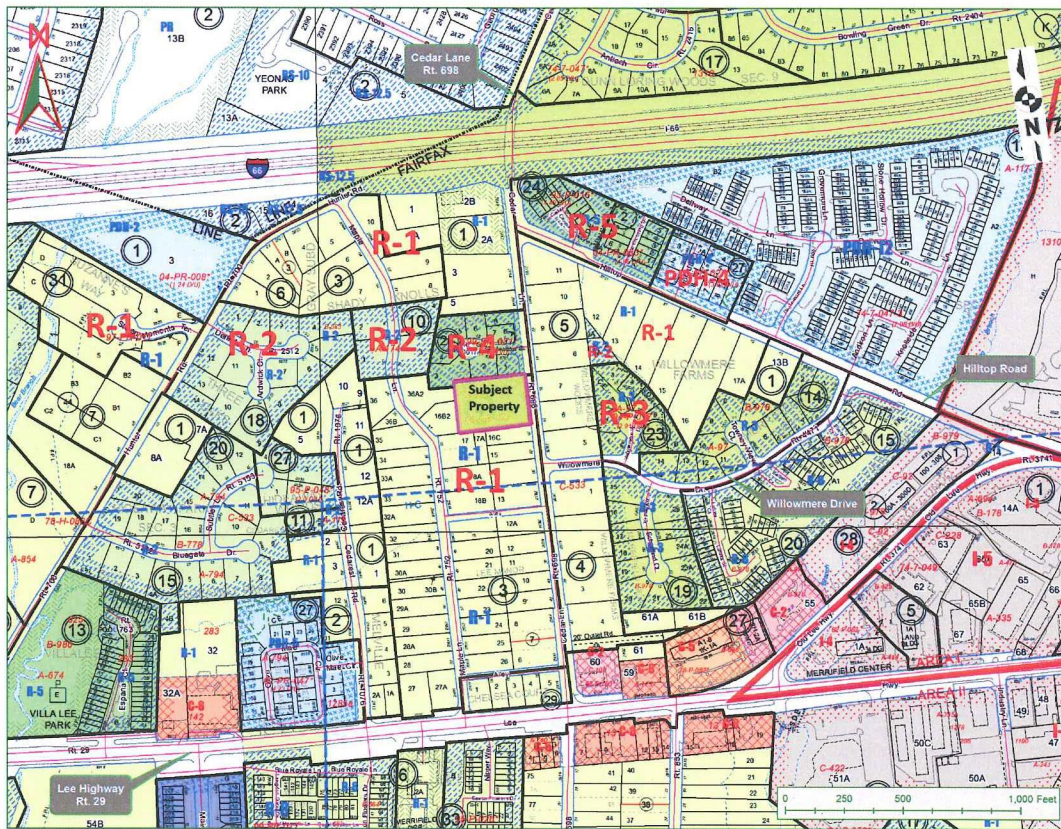
The applicant's draft proffers, affidavit, and statement of justification are contained in Appendices 1, 2 and 3 respectively.

LOCATION AND CHARACTER

The subject property associated with RZ 2009-PR-022 consists of a single parcel, Tax Map # 49-1 ((4)) 16A, and is 1.45 acres in size. This parcel is located on the west side of Cedar Lane and is bounded by the Cedar Woods subdivision to the north, which is zoned R-4 and developed with seven single family detached dwelling units at a density of 2.78 du/ac and an average lot size of 11,913 square feet (SF). To the south and west is the Lee Manor subdivision, which is zoned R-1 and predominantly characterized by single family detached dwelling units on lots that range in size from 4,500 SF to 21,747 SF. To the east, across Cedar Lane is the Willowmere Farms subdivision, which is zoned R-1 and characterized by single family detached dwellings, with an average lot size of 28,773 SF.

The subject property is currently zoned R-1 and is developed with one single family detached dwelling unit that is situated in the center of the parcel with orientation towards, and access to, Cedar Lane. In addition, there is an existing accessory structure, a shed, located in the northwest corner of the subject property. As identified above, all existing structures on the site are proposed to be demolished as a part of this application.



ZONING MAP

North: R-4
(Single-family detached)
Plan: Residential:
3-4 du/ac

West: R-1 (Single-family detached)
Plan: Residential:
3-4 du/ac

East: R-1 (Single-family detached)
Plan: Residential:
3-4 du/ac

South: R-1 (Single-family detached)
Plan: Residential:
3-4 du/ac

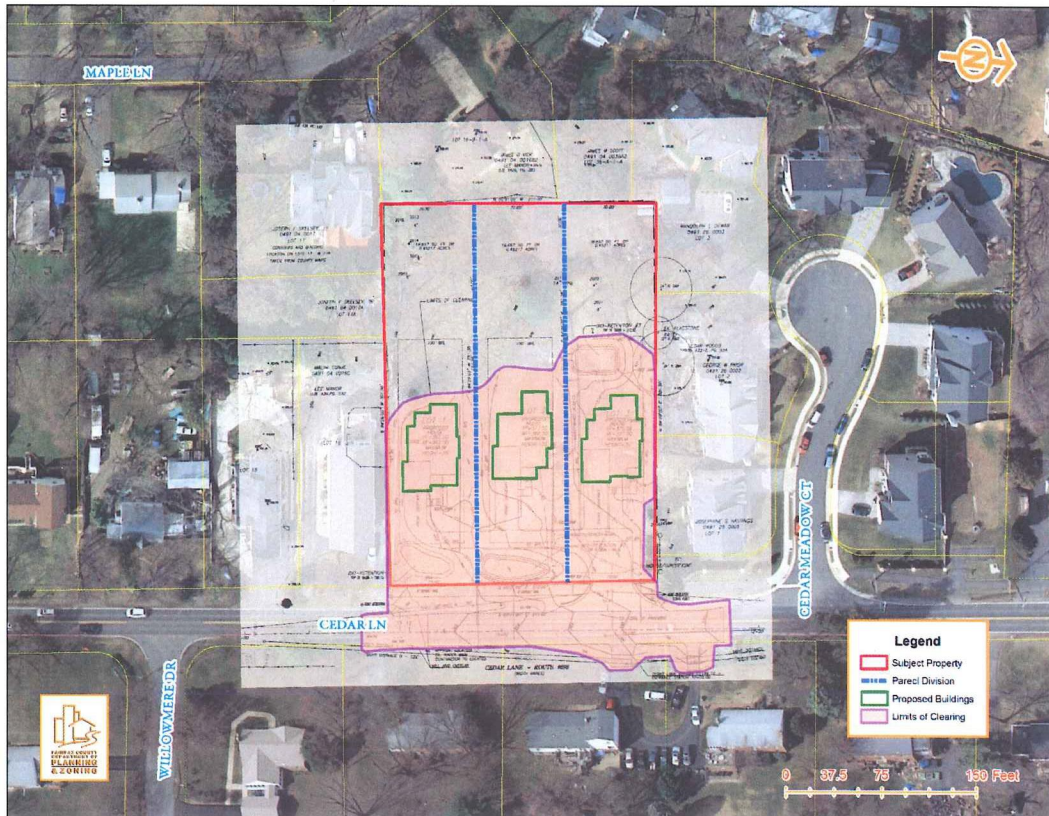
BACKGROUND

On September 21, 2006, Rezoning application RZ 2006-PR-029 was filed on the property, which was a request to rezone the subject property from R-1 to R-4 in order to construct three single-family detached dwellings. The application was withdrawn by the applicant on May 21, 2007.

General Development Plan (GDP) (Copy at front of staff report)

The analysis is based on the draft proffers and submitted Generalized Development Plan titled "Hollingsworth Property" prepared by J2 Engineers, Inc. and dated May 14, 2008, as revised through May 8, 2012.

Below is a discussion of the Generalized Development Plan.



Site Layout: The proposed layout includes the division of the subject property into three separate residential lots, for the purpose of constructing three single-family detached dwelling units at density of 2.07 du/ac; both existing structures on the property are proposed to be demolished. Each of the proposed lots will be approximately 19,697 square feet in size.

Vehicular Access: Access to each unit will be provided via a shared driveway that will consolidate access to the new lots into a single entrance off of Cedar Lane, located in the northern portion of the site near proposed Lot 1.

Parking: Adequate driveway area has been provided on each lot, at an average length of approximately 25 feet, which will provide opportunity for vehicle parking on each individual lot. In addition, the proposed proffers indicate that a minimum of two parking spaces will be provided within a garage for each dwelling unit. The proffers also include language prohibiting the conversion of the garages that precludes motor vehicle storage.

Pedestrian Access: An 8-foot wide asphalt trail is shown along the site's entire Cedar Lane frontage, providing the opportunity for pedestrian access to the site, from the north, along the west side of Cedar Lane. To the north, this trail will connect into the existing 8 foot wide asphalt trail associated with the Cedar Woods subdivision, which provides access to this subdivision by connecting into the sidewalk along Cedar Meadow Court. Since there is no existing trail or sidewalk to the south of the subject property, the proposed asphalt trail will terminate in the southeast corner of Lot 1. The proposed trail will be privately maintained.

Tree Save and Landscaping: The majority of the existing site is maintained grassland, with a significant number of mature trees scattered throughout, located primarily along the periphery of the subject property. The northern portion of the site contains several large, mature red oak trees and a twin lead tulip tree. There also appears to be a co-owned red oak tree and cherry tree along the northern property boundary, as well as a cluster of four cedar trees located in the northeast corner of the site. The overstory vegetation at the southern portion of the site consists primarily of hickory, post oak, and white oak trees, while the understory growth in this area consists of cherry, dogwood, hickory and holly trees. The western portion of the site contains large, mature trees consisting primarily of white oak, red oak, tulip tree, and white pine.

Most of the existing trees on the site are proposed be removed. The applicant is proposing to preserve trees in the western portion of the subject property, which is bounded to the east by the limits of clearing and grading as depicted on Sheet 2 of the GDP.

The applicant is proposing supplemental landscaping along the northern, western, and southern boundaries of the site. Additional plantings are also proposed with the bio-retention facilities proposed for stormwater management.

Stormwater Management: The application proposes that stormwater management (SWM) and best management practices (BMP) requirements will be achieved through the use of bio-retention facilities that will be located on site, for which a modification of the Public Facilities Manual (PFM) will be required. Each lot will contain one bio-retention facility, all of which have been designed to handle a 100 year storm event. The GDP and the proffers both indicate that the facilities will be privately maintained by each of the respective lot owners in the development.

Post-development run-off will be conveyed through an existing storm sewer system, both open and closed, that connects to an existing closed system through the Villa Lee townhouse development to the southwest of the subject property, along Lee Highway. The outfall of this system is the existing flood plain located south of Villa Lee, on the south side of Lee Highway.

ANALYSIS**COMPREHENSIVE PLAN PROVISIONS** (Appendix 4)

In the Fairfax County Comprehensive Plan, 2011 Edition, Vienna Planning District, Amended through March 6, 2012, V1 Lee Community Planning Sector, the Plan States:

The south west quadrant of the intersection of Interstate 66 and Cedar Lane (Tax Map 49-1((1))3, 5, and 6; and 49-1((4))15, and 16A) is planned for single-family detached residential use only at a density of 3-4 dwelling units per acre, exclusive of the dedication of land necessary for the widening of Cedar Lane. Only conventional subdivision development should be allowed so that compatibility is maintained with the existing single-family communities to the east, south and west of these parcels.

Land Use Analysis (Appendix 5)**Use & Intensity**

The Comprehensive Plan contains site specific language for this area, specifying that the subject property is planned for conventional subdivision development only, at a density of 3-4 du/ac, which is exclusive of the dedication of land necessary for the widening of Cedar Lane. The proposed density of 2.07 du/ac is below the range identified in the Plan and this density is consistent with the Cedar Woods development located to the north. Pursuant to RZ 99-PR-031, that 2.52 acre property was rezoned from R-1 to R-4 and developed at a density of 2.78 du/ac, which is also below the density range recommended by the Comprehensive Plan. Further, the application proposes to develop a conventional single-family detached subdivision. Therefore the proposal is in conformance with the site specific language of the Comprehensive Plan.

Residential Development Criteria & Analysis (Appendix 9)

Fairfax County expects new residential development to enhance the community by fitting into the fabric of the neighborhood, respecting the environment, addressing transportation impacts, addressing impacts on public facilities, respecting the County's historic heritage, contributing to the provision of affordable housing, and being responsive to the unique site specific considerations of the property. To that end, the following criteria are used in evaluating zoning requests for new residential development:

Site Design (Development Criterion #1)

Development Criterion #1 requires that the development proposal address consolidation goals in the Comprehensive Plan, or when consolidation is not specifically identified, further the integration of the development with adjacent parcels. In any case, the consolidation of the development should not preclude adjacent parcels from developing in accordance with the Plan.

The Comprehensive Plan does not specifically identify a consolidation goal for this specific area; thus, this proposed development has been evaluated based on its ability to integrate with adjacent parcels. The proposed development will not preclude adjacent lots from developing in accordance with the Plan, and the density of 2.07 du/ac is lower than the 3-4 du/ac density recommended in the Comprehensive Plan. Further, it is consistent with the approved density of the Cedar Woods development located to the north, which was rezoned from R-1 to R-4 and developed at a density of 2.78 du/ac, pursuant to RZ 99-PR-031. Staff believes that the proposed development will not preclude unconsolidated parcels from further developing in accordance with the Comprehensive Plan.

The development proposal should provide logical, functional, and appropriate design relationships within the development, including appropriately oriented units and useable yard areas within the individual lots. Convenient access to transit facilities should be provided where available, and all aspects pertaining to utilities shall be identified.

The proposed site layout shows that each of the three lots will measure 19,697 square feet, which far exceeds the 8,400 square foot minimum for the R-4 District. The GDP also shows that each dwelling unit will meet the minimum required setbacks for the R-4 District. In fact, the applicant has proffered to maintain a minimum rear yard of not less than 100 feet for each new lot. Given the large size and depth of the proposed lots, the layout will provide adequate, useable yard areas. In addition, the dwelling units are appropriately oriented towards Cedar Lane, as are other dwellings in the vicinity, and an eight-foot wide trail is proposed along the Cedar Lane frontage of the site.

Open space should be usable, accessible and integrated. Appropriate landscaping should be provided, as should amenities such as benches, recreational amenities, and special design treatments.

The R-4 District does not have an open space requirement. The three lots are proposed as a conventional subdivision, in conformance with the Comprehensive Plan, precluding public open space, and consistent with the existing neighborhood pattern.

Neighborhood Context (Development Criterion #2)

While new development is not expected to be identical to neighboring developments within which it is located, this Criterion states that they should fit in the fabric of the area as evidenced by an evaluation of: transitions to abutting and adjacent uses; bulk/mass of the proposed dwelling units; building setbacks and orientation; architectural elevations and materials; pedestrian, bicycle and vehicular connections to off-site trails, roadways, transit facilities and land uses.

The proposed development is compatible with the Cedar Woods subdivision to the north with respect to density and architectural elevations; and the orientation of the dwellings is similar to the orientation of dwellings along the opposite side of Cedar Lane. The Cedar Woods subdivision consists of seven lots with an average lot size of approximately 12,150 SF. To the south, the Lee Manor subdivision is characterized by lots that are approximately 14,000 square feet in size. While the proposed lot sizes of 19,697 SF are larger than those in the surrounding neighborhoods, they do adequately transition into the adjacent residential community. Furthermore, since the surrounding area is similarly characterized by single-family detached dwellings with comparable setbacks and building orientation towards Cedar Lane, staff believes that the new development will fit into the fabric of the neighborhood.

Environment & Preservation and Tree Cover Requirements
(Development Criteria #3 & 4)

Development Criterion #3 requires that the development respect the natural environment by: conserving natural environmental resources to the extent possible; designing development while considering existing topographic and soil conditions; minimizing off-site impacts from stormwater runoff and adverse water quality impacts; protecting current and future residents from noise and lighting impacts; and, providing a site layout which encourages and facilitates energy preservation.

The subject site abuts Cedar Lane, and a traffic noise analysis indicated noise contour projections for this area of 65 dBA DNL at 106 feet from the centerline of Cedar Lane, and 70 dBA DNL at 49 feet from the centerline. Therefore, the proposed structures associated with this application may be affected by the projected future traffic noise from Cedar Lane since they fall within the 65-70 dBA DNL impact area. In order to reduce noise in interior areas to 45 dBA DNL or less, any residential structure that will be located within 106 feet of the centerline of Cedar Lane should be constructed with building materials that are sufficient to provide this level of acoustical mitigation. In order to reduce exterior noise levels in the side yards of the lots that are located at least partially within the projected 65-70 dBA DNL impact area, one or more noise barriers should be provided. A berm, architecturally solid wall, or a combination of both can be used as a noise barrier, assuming that any attenuation measures meet all applicable provisions of the Zoning Ordinance.

In response to staff's concern regarding this issue, the applicant has proffered to mitigate interior noise levels to 45 dBA DNL or less through the use of sound rated exterior walls and through the use of other construction materials and techniques that are known to have physical properties or characteristics suitable to minimizing sound.

Staff also encouraged the applicant to commit to the attainment of Energy Star Qualified homes, or EarthCraft House standards for the proposed dwellings. In response to staff's recommendation the applicant has proffered that all of the new dwelling units on the site shall be constructed to achieve certification in accordance with the EarthCraft House Program as demonstrated through documentation provided to DPWES and DPZ prior to the issuance of the occupancy permit for each dwelling.

Criterion #3 also recommends that off-site impacts from stormwater runoff and adverse water quality impacts be minimized. The application proposes that SWM and BMP requirements will be achieved through the use of bio-retention facilities that will be located on each lot. Each of the three lots will contain one bio-retention facility, all of which have been designed to handle a 100 year storm event. The GDP and the proffers both indicate that the facilities will be privately maintained by each of the respective lot owners in the development. The post-development run-off will be conveyed through an existing storm sewer system, both open and closed, that ultimately connects to an existing closed system through the Villa Lee townhouse development to the southwest of the subject property, along Lee Highway. The outfall of this system is the existing flood plain located south of Villa Lee, on the south side of Lee Highway.

The Department of Public Works and Environmental Services (DPWES) reviewed the application and noted that there are a number of stormwater management issues that must be addressed at the time of subdivision plan review. It should be noted that a modification of the PFM will be required in order to locate the bio-retention facilities on each individual lot. While DPWES has supported similar modifications in the past, at the time of subdivision plan review, the applicant must demonstrate that the design and size of each facility is adequate to provide sufficient water quality and quantity controls. Additionally, since there are downstream complaints on file along the outfall of the proposed development related to channel blockages, basement flooding and yard flooding, the applicant will need to further demonstrate the effect of the proposed development on downstream properties. This includes providing an adequate outfall narrative and analysis on the subdivision plan that address the condition of each site outfall in terms of capacity and stability; demonstrating that a defined channel exists between any point of concentrated discharge and the perennial stream of Cedarest Road (~230 feet) downstream, and demonstration that any increase in non-concentrated runoff will have no adverse impacts on downstream properties including during a 100-year storm.

While staff has identified possible stormwater management issues at this time, the final determination regarding the adequacy of the proposed SWM and BMP facilities will not be made until the time of subdivision plan review when more detailed engineering data will be required for DPWES review and analysis. In the event that a waiver of the PFM requirements is not granted and/or the SWM/BMP facilities required are not in substantial conformance with the GDP, then a Proffered Condition Amendment (PCA) shall be required.

Criterion #4 states that all developments should be designed to take advantage of existing tree cover and developed appropriately to disturb as little existing tree cover as possible. Furthermore, the extension of utility improvements to the site should be located in a manner that does not interfere with proposed tree save and landscape areas.

The existing site has a significant number of mature trees scattered throughout, located primarily along the periphery of the subject property. Pockets of these overstory trees are located in the northern, southern and western portions of the subject property and contain several large, mature specimens of red oak trees, white oak, tulip tree, hickory, and white pine. Understory growth on the subject property includes cherry, dogwood, hickory and holly trees. There also appears to be a co-owned red oak tree and cherry tree along the northern property boundary, as well as a cluster of four cedar trees located in the northeast corner of the site.

While the applicant is proposing to remove many of the existing trees on the site to accommodate the proposed development, the applicant is proposing to preserve trees in the western portion of the subject property, which is bounded to the east by the limits of clearing and grading as depicted on Sheet 2 and 4C of the GDP. This area will allow the preservation of several of the larger white and red oak trees on the site, which were identified by Urban Forest Management (UFM) as a priority for preservation. In addition, the applicant has also amended the limits of clearing and grading in this area in order to provide a larger tree save area for those specific trees that have been identified to be saved in the western portion of the site.

The applicant has also proposed to preserve the four cedar trees located in the northeast corner of the subject property. While this will provide an immediate buffer between the new development and a portion of the existing residences located to the north, there are several co-owned and off-site trees in this area that may not be adequately protected given the limits of clearing and grading in this area. It has been recommended that the applicant provide a 10-foot wide undisturbed buffer along the northern property boundary to protect co-owned and off-site trees. Similarly, an existing concrete sidewalk and shed are located in the northwest corner of the subject property, within the root zone of a 35-inch red oak that has been identified for preservation. In order to adequately preserve this specimen, specific limits of clearing and grading should be shown for this area, including details as to how the sidewalk and shed will be demolished. The draft proffers have been amended to note removal of existing features shall be done by hand in a manner that does not impact trees per UFM, DPWES. Therefore, this issue has been resolved.

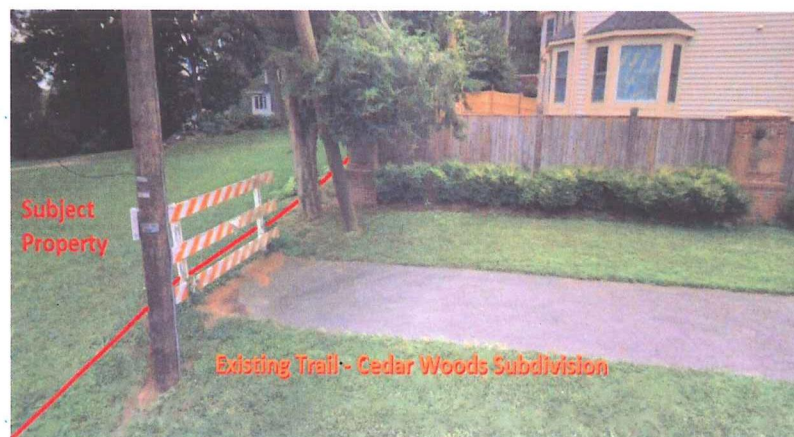
Transportation (Development Criterion #5)

This Criterion requires that developments provide safe and adequate access to the surrounding road network, and encourages transit and pedestrian travel and the interconnection of streets. While public streets are preferred, private streets are allowed but the applicant shall demonstrate their benefit. In addition, alternative street designs may be appropriate where conditions merit.

As previously discussed, the applicant is proposing access to the site via a shared driveway that will consolidate access to the new lots into a single entrance off of Cedar Lane. In order to provide adequate site distance and stopping sight distance at the proposed entrance, the GDP indicates that Cedar Lane will have to be re-graded, and

the applicant has proffered to perform this improvement as shown on the GDP. FCDOT staff recommended that the applicant commit to closing half of Cedar Lane outside of daily peak hours (9 am to 3 pm) while the road improvements are underway and submit a road closure plan at the time of site plan review. In addition FCDOT staff recommended all neighboring driveways and entrances be restored to as they originally were when the final construction is completed. The applicant has revised the proposed proffers to address the above recommendations.

VDOT staff recommended that the applicant provide a 10-foot wide pedestrian trail along the Cedar Lane frontage of the site per VDOT standards, which would allow VDOT to maintain the trail. The GDP depicts an 8-foot wide asphalt trail along the site's entire Cedar Lane frontage. This trail will provide pedestrian access to the site from the north, along the west side of Cedar Lane. To the north, this trail will connect into the existing asphalt trail associated with the Cedar Woods subdivision, which is approximately eight feet wide and provides access to the subdivision by connecting into the sidewalk along Cedar Meadow Court. A 10-foot wide asphalt trail was not provided with the Cedar Woods Development due to existing utility poles along the Cedar Lane frontage of the site. Since there is no existing trail or sidewalk to the south of the subject property, the proposed asphalt trail will terminate in the southeast corner of proposed Lot 1. Since the trail does not meet the 10-foot width requirement for VDOT maintenance, the applicant has proffered that the trail will be privately maintained.



Existing adjacent trail north of the subject property

The applicant is proposing to dedicate 0.0970 acres, or 4,225 square feet, of frontage along Cedar Lane for public right-of-way. This results in a dedication of right-of-way to 35 feet from the centerline of Cedar Lane. In addition, the applicant has also proffered to provide an additional three feet of right-of-way beyond this for a total of 38 ft. from centerline, should VDOT request such in order to properly maintain the trail that is to be located in this area. FCDOT staff strongly recommended that the applicant construct the frontage improvements concurrent with the proposed redevelopment of the site. However, the GDP does not depict frontage improvements to be provided along the site's Cedar Lane frontage. Instead, the applicant has proffered to request a waiver of

the construction of frontage improvements along the Cedar Lane frontage; and if the waiver is not approved, either provide funds in escrow to Fairfax County, in an amount necessary to perform these improvements at a later date; or construct the frontage improvements concurrent with the proposed development. The proffer further states that FCDOT and VDOT will make the determination on the measures to be provided if the waiver of the construction of frontage improvements is not approved. While the frontage improvements are not shown on the plan, based on the proposed proffers, this issue has been addressed. The final determination will be made at the time of subdivision review.

Public Facilities (Development Criterion #6)

Residential development should offset its impacts on public facility systems (i.e., schools, parks, libraries, police, fire and rescue, stormwater management and other publicly owned facilities). Development Criterion #6 states that impacts may be offset through the dedication of land, the construction of public facilities, the contribution of specified in-kind goods, services or cash earmarked for those uses, and/or monetary contributions to be used toward funding capital improvement projects. Phasing of development may be required to ensure mitigation of impacts. (Specific Public Facilities issues are discussed in detail in Appendices 8 through 11).

Fairfax County Park Authority Analysis (Appendix 9)

The proposed development will generate additional residents in the Providence District, who will require access to outdoor recreational facilities. In order to offset the additional impact caused by this development, the Fairfax County Park Authority has recommended that a proffered contribution of \$5,358.00 would be appropriate for recreational facility development at one or more of the existing park sites that is located within the service area of the subject property. The proposed proffers associated with this application reflect this request.

Fairfax County Public Schools Analysis (Appendix 10)

According to the Fairfax County Public Schools Analysis, the rezoning and subsequent redevelopment of the subject property with three single-family detached dwelling units could generate two additional students over the existing zoning designation would allow. As such, the Fairfax County Public Schools, Office of Facilities Planning Services, has determined that a proffered contribution of \$24,800, or \$12,400 per student, is appropriate to offset the potential impact on student membership in the area. As a part of this application, the applicant has proffered to make a contribution in this amount.

Fire and Rescue Analysis (Appendix 11)

The requested rezoning currently meets fire protection guidelines, as determined by the Information Technology Section of the Fire and Rescue Department, and the Fire Prevention Division.

Fairfax County Water Authority Analysis (Appendix 12)

There are no Water Authority issues associated with this application at this time. However, the applicant must fully comply with all applicable standards and regulations.

Affordable Housing (Development Criterion #7)

Development Criterion #7 is applicable to all rezonings and states that ensuring an adequate supply of housing for low and moderate income families, those with special accessibility requirements, and those with other special needs is a goal of Fairfax County. This may be satisfied by the construction of units, dedication of land, or by a contribution to the Housing Trust Fund.

Given that the proposed residential development does not exceed 50 dwelling units, Part 8 of Article 2 of the Zoning Ordinance does not require that affordable dwelling units be provided. This criterion is applicable to all rezoning applications and/or portions thereof that are not required to provide any ADUs, regardless of the planned density range for the site. As identified above, this can be accomplished by a contribution of units, or by a contribution to the Fairfax County Housing Trust Fund, in the amount equal to 0.5% of the projected sales price value of each new residential unit approved on the property.

The applicant has included a proffer to a contribution to the Fairfax County Housing Trust Fund, in the amount equal to 0.5% of the value of the new residential units approved on the property. Therefore, this criterion has been met.

Heritage Resources (Development Criterion #8) (Appendix 13)

This Criterion recommends that developments address potential impacts on historical and/or archaeological resources through research, protection, preservation, or recordation.

The Fairfax County Park Authority has determined that the existing dwelling on the subject property is more than 50 years old and has a moderate potential for significant historic archeological and architectural resources. Therefore, in its analysis of the application, the Park Authority has recommended that the existing site be evaluated for historic and architectural significance by the Fairfax County Historic Preservation Planner.

Although the parcel is not listed on the Fairfax County Inventory of Historic Places or the Standing Structures Survey, the staff review notes there is physical evidence on the site that indicates that the existing dwelling is potentially a Sears house, and, therefore, a significant heritage resource. In addition, the siting of the house and the cultural landscape indicate that development of this property preceded that of the existing dwelling. For the purpose of recording and documenting relevant historic information on

the subject property, it has been recommended that the applicant document and photograph the existing house located on the subject property, as identified in the Preservation analysis. Furthermore, if the site is determined to be significant, then the property should be subjected to a Phase II archeological evaluation using a scope of work provided by the Cultural Resource Management and Protection Section (CRMPS), of the Fairfax County Park Authority. Draft and final reports produced as a result of the Phase II study should be submitted to CRMPS for approval. Based on the review of the findings of this evaluation, a subsequent Phase III data recovery may be necessary, including public interpretation of any results.

The applicant has proffered to conduct a Phase I archaeological study on those areas identified by CRMPS and provide the results to CRMPS for review and approval. The Applicant has also proffered to submit Phase II and Phase III evaluations if they are warranted. Therefore, this criterion has been met.

CONCLUSIONS AND RECOMMENDATIONS

Staff Conclusions

The applicant requests approval of a rezoning of approximately 1.45 acres from the R-1 District to the R-4 District. The purpose of the application is to allow subdivision of the existing land area into three separate building lots, and to permit the construction of single family detached dwelling units on the site, at an overall density of 2.07 dwelling units per acre. The Comprehensive Plan includes site specific language recommending that the subject property is to be developed with residential uses at 3-4 du/ac. In staff's evaluation, the proposal is in harmony with the intent of the Comprehensive Plan and meets all applicable provisions of the Zoning Ordinance.

Recommendations

Staff recommends approval of RZ 2009-PR-022, subject to executed proffers consistent with those contained in Appendix 1.

Staff recommends approval of a modification of the Comprehensive Plan Trail requirement to allow an 8-foot wide trail.

It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions proffered by the owner, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Supervisors.

The approval of this application does not interfere with, abrogate or annul any easements, covenants, or other agreements between parties, as they may apply to the property subject to this application.

APPENDICES

1. Draft Proffers
2. Affidavit
3. Statement of Justification
4. Environmental Analysis
5. Urban Forest Management Analysis
6. Stormwater Management Analysis
7. Transportation Analysis
8. Park Authority Analysis
9. Public Schools Analysis
10. Water Authority Analysis
11. Residential Development Criteria
12. Applicable Zoning Ordinance Standards
13. Glossary

PROFFERS - RZ 2009-PR-022
James M. Hollingsworth
2818 Cedar Lane, Vienna, VA 22180
June 27, 2012

Pursuant to Section 15.2-2303(A) of the 1950 Code of Virginia, as amended, the Applicant, for himself and his successors or assigns (herein collectively referred to as the "Applicant") in this rezoning application filed on property identified on the Fairfax County Tax Map 49-1 ((4)), Parcel 16A (hereinafter referred to as the "Application Property"), agrees to the following proffers, provided that the Fairfax County Board of Supervisors (hereinafter referred to as the "Board") approves the rezoning of the Application Property from the R-1 zoning district to the R-4 district.

1. Development Plan

a. Subject to the provisions of Section 18-204 of the Fairfax County Zoning Ordinance ("the Ordinance"), development of the portion of the Application Property identified on the Fairfax County Tax Map 49-1 ((4)), Parcel 16A shall be in substantial conformance with the Generalized Development Plan ("GDP") containing 10 sheets and prepared by J2 Engineers, dated November 22, 2011 and revised through May 8, 2012

b. Pursuant to Paragraph 2 of Section 18-204 of the Zoning Ordinance, minor modifications from the GDP may be permitted as determined by the Zoning Administrator and shall be in substantial conformance with the GDP. These modifications may include the locations of utilities, minor adjustment of property lines, and the general location and size of dwellings on the proposed lots provided that the total area of open space is not decreased from that shown hereon, the building setbacks outlined on the GDP are honored, and the limits of clearing and grading are adhered to.

2. Homeowners Association

The applicant shall establish a Homeowner's Association (HOA) for the proposed development to own, manage and maintain the area in the easement for the shared portion on the driveway (noted per easement), eight (8) foot asphalt trail, and tree save areas noted in the Tree Preservation Area and maintain all other community land and improvements. Restrictions placed on the use of the open space/buffer areas, tree preservation easement, minimum setbacks and the maintenance responsibilities of the bioretention facilities and Homeowner's Association shall be disclosed to all prospective homeowners in a disclosure memorandum recorded in the Land Records prior to entering into a contract of sale and included in the HOA documents.

3. Garages

A minimum of two parking spaces shall be provided within the garage of each dwelling unit. Any conversion of garages that will preclude the parking of vehicles within the garage is prohibited. A covenant setting forth this restriction shall be recorded among the Land Records of Fairfax County in a form approved by the County Attorney prior to the sale of any lots, and shall run to the benefit of the Board of Supervisors and this restriction shall be included in the subdivision documents. All sales literature and information to prospective purchasers shall notify purchasers of this restriction prior to or simultaneous with entering into a contract of sale for a lot on the property.

4. Architecture:

The houses constructed on the property shall be single-family detached residences similar in style and presentation to the houses shown on page 2A of the Generalized Development Plan dated May 8, 2012 or of comparable quality as determined by DPWES; provided, however, Applicant shall be permitted to vary the exterior design of the house to meet purchasers' desires as long as each house remains generally similar in style and presentation to the other houses constructed on the property. The exterior of the houses shall be constructed of brick, stone, cedar shingles or "Hardiplank" (or comparable cementous siding), the proportion of which used for each house being reserved to the Applicant.

5. Building Restriction Line (BRL) Restrictions:

Notwithstanding the BRL set forth in Zoning Ordinance Section 3-407, 2.A(1)(c), in order to effect the overall intent of the approved GDP, the Applicant hereby proffers to and shall establish a rear BRL set at 100 feet from the rear lot line on each proposed lot on the GDP (herein the "proffered rear BRL"). The proffered rear building restriction line established by the Applicant shall be in lieu of the BRL set forth in the R-4 District. Establishment of the proffered rear BRL shall be set forth in a covenant approved as to form and content by the Fairfax County Attorney, and recorded among the Land Records with the subdivision plat. All sales literature and information to prospective purchasers shall notify purchasers of restrictions relating to this proffered rear BRL prior to or simultaneous with entering into a contract of sale for a lot on the property.

6. Right of Way Dedication:

Right of Way: Applicant shall dedicate and convey in fee simple to the Board of Supervisors, right of way for public street purposes (together with all ancillary easements), 35 feet from the centerline of Cedar Lane as shown on the GDP, and additional dedication of 3 feet if required by VDOT at the time of subdivision approval; and construct public improvements as shown thereon. In addition, Applicant shall improve shared driveway entrance to be in similar and substantial conformity to the entrance of the adjacent subdivision, RZ-1999-PR-031. Dedication

of right of way shall be made at time of first subdivision plan approval or upon demand from Fairfax County, whichever shall first occur.

Frontage Improvements: Applicant shall provide a justification statement and analysis to VDOT and FCDOT to support the front ditch and shoulder improvement of the property's frontage adjacent to Cedar Lane in lieu of curb and gutter as shown on the GDP dated May 8, 2012. If this ditch and shoulder frontage improvement is not authorized by VDOT/FCDOT then Applicant shall either:

1. Escrow funds with Fairfax County DPWES per published unit prices for the construction of curb and gutter improvements along the property's Cedar Lane frontage; or
2. Construct the curb and gutter improvements.

If the request for frontage improvements for ditch and shoulder are not approved by VDOT and it is determined that curb and gutter frontage improvements shall be made, the frontage improvements shall be made whereas the face of the curb shall be 20 ft from the centerline of Cedar Lane.

FCDOT and VDOT will make the determination on the measures to be provided if the ditch and shoulder plan is not approved. Such improvements will be limited to the frontage immediately in front of the subject property and will not extend onto adjacent properties to the north or south of the subject property, except as shown on the GDP dated May 8, 2012, and will not include the relocation of any utility poles on the north and south part of the subject property. Dedication of right of way shall be made at time of first subdivision plan approval or upon demand from Fairfax County, whichever shall first occur.

Cedar Lane Road Improvement: Applicant shall commit to closing one half of Cedar Lane at a time, and at times outside the daily peak hours specific to Cedar Lane. The maintenance and protection of traffic shall be provided according to strict regulations stated in the Federal Manual on Uniform Traffic Control Devices. If neighboring driveways are blocked by construction time over-runs or by overnight road disrepair, the applicant shall provide the cost for lodging for the family homes affected. The Applicant shall submit road closure plans at submission of site plans. All neighboring driveway and entrances shall be restored in-kind and in accordance with the GDP dated May 8, 2012 when the final construction is completed. The applicant shall submit a Cedar Lane driveway photo-log to the District Supervisor's office before any construction begins.

Notwithstanding the foregoing, funds may be reallocated at the discretion of the Providence District Supervisor toward construction of other transportation related improvements, including pedestrian facilities, in the vicinity of the application property, as determined by the Fairfax County Department of Transportation (FCDOT).

7. Maintenance of Bio Retention Facilities (Rain Gardens):

The rain gardens shown on the subject property will be designed and constructed as determined by DPWES, and shall be maintained by the owners of the respective lots on which the rain gardens are located. All sales literature and information will detail that a maintenance agreement that shall be signed by prospective purchasers prior to or simultaneous with entering into a contract of sale for a lot on the property. The maintenance agreement shall detail how the rain gardens are to be maintained to include a mulching schedule and details on plantings permitted within the rain gardens. The maintenance agreement shall be an agreement that runs with the land to protect the rain gardens by future and/or subsequent property owners.

If stormwater management measures required by DPWES at site plan are not in substantial conformance with that shown on the GDP, a proffered condition amendment (PCA) shall be required.

8. Common Driveway Maintenance:

The common driveway providing access to Cedar Lane for each of the lots on the property shall be maintained by the homeowners pursuant to a joint maintenance agreement which Applicant shall set forth as a covenant, recording the same with the subdivision documents at the time of recordation of the subdivision plat. The covenant for common driveway maintenance shall be in a form approved by the County Attorney. All sales literature and information to prospective purchasers shall notify purchasers of this covenant prior to or simultaneous with entering into a contract of sale for a lot on the property.

9. Park Authority Contribution:

At the time of subdivision plan approval, the Applicant will contribute the sum of \$5,358.00 to the Fairfax County Park Authority for development of recreational facilities at one or more of the FCPA sites located within the service area of the subject property.

10. School Board Contribution:

At the time of subdivision plan review/approval the applicant shall contribute the sum of \$24,800.00 for capital improvements to the public schools served by the subdivision. Said contribution shall be deposited with DPWES for transfer to Fairfax County Public Schools.

11. Contribution to Housing Trust Fund:

To assist the County in its goal to provide affordable dwellings elsewhere in the County, prior to the issuance of the first Building Permit, the Applicant shall contribute to the Fairfax County Housing Trust Fund a sum equal to one-half of one percent (0.5%) of the projected sales price of each of the new residential units to be built on-site, as determined by the Department of Housing and Community Development (HCD) and DPWES in consultation with the Applicant.

12. Tree Preservation/ Landscape Design: Tree Preservation:

The Applicant shall submit a Tree Preservation plan and Narrative as part of the first and all subsequent subdivision plan submissions. The preservation plan and narrative shall be prepared by a Certified Arborist or a Registered Consulting Arborist with experience in the preparation of tree preservation plans, and shall be subject to the review and approval of the Urban Forest Management Division (UFMD), DPWES.

Tree Preservation: The tree preservation plan shall include a tree inventory that identifies the location, species, critical root zone, size, crown spread and condition analysis percentage rating for all trees individual trees to be preserved as well as all on and off-site trees, living or dead with trunks 12 inches in diameter and greater (measured at 4 ½ - ft from the base of the trunk or as otherwise allowed in the latest addition of the Guide for Plant Appraisal published by the International Society of Arboriculture) located within 25 feet to either side of the limits of clearing and grading shown on the GDP for the entire site. The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside of the limits of clearing and grading shown on the GDP and those additional areas in which trees can be preserved as a result of final engineering. The tree preservation plan and narrative shall include all items specified in PFM 12-0507 and 12-0509. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization and others as necessary shall be included in the plan. Condition analysis ratings shall be prepared using methods outlined in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture.

Tree Preservation Walk-Through: The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's certified arborist or landscape architect shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated under story vegetation. If a stump must be removed this shall be done using a

stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated under story vegetation and soil conditions.

Limits of Clearing and Grading. The Applicant shall conform strictly to the limits of clearing and grading as shown on the GDP, subject to allowances specified in these proffered conditions and for the installation of utilities and/or trails or supplemental planting as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the GDP, they shall be located in the least disruptive manner necessary as determined by UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by UFMD, DPWES, for any areas protected by the limits of clearing and grading that must be disturbed for such replanting, trails or utilities.

Tree Preservation Fencing: All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the demolition, and phase I and II erosion and sediment control sheets, as may be modified by the "Root Pruning" proffer below.

All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. The installation of all tree protection fencing shall be performed under the supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by UFMD, DPWES.

Root Pruning: The Applicant shall root prune, as needed to comply with the tree preservation requirements of these proffers. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the subdivision plan submission. The details of these treatments shall be reviewed and approved by UFMD, DPWES, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:

1. Root pruning shall be done with a trencher or vibrating plow to a depth of 18 inches.

2. Root pruning shall take place prior to any clearing and grading, or demolition of structures.
3. Root pruning shall be conducted with the supervision of a certified arborist.
4. An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete.

Demolition of Existing Structures: The demolition of all existing features and structures within areas protected by the limits of clearing and grading areas shown on the GDP shall be done by hand without heavy equipment and conducted in a manner that does not impact individual trees and/or groups of trees that are to be preserved as reviewed and approved by UFM, DPWES.

Site Monitoring: During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as proffered and as approved by UFMD, DPWES. The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist to monitor all construction and demolition work and tree preservation efforts in order to ensure conformance with all tree preservation proffers, and UFMD, DPWES approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by UFMD, DPWES.

Monetary Value of Trees: The Applicant shall retain a professional arborist with experience in plant appraisal, to determine the replacement value of all trees 12 inches in diameter or greater located on the Application Property, or those that are shown to be saved on the Tree Preservation Plan. These trees and their value shall be identified on the Tree Preservation Plan at the time of the first submission of the respective public improvement/site plan(s). The replacement value shall take into consideration the age, size and condition of these trees and shall be determined by the so-called "Trunk Formula Method" contained in the latest edition of the Guide for Plan Appraisal published by the International Society of Arboriculture, subject to review and approval by UFMD, DPWES.

Tree Bond: At the time of the respective public improvement/site plan approvals, the Applicant shall both post a cash bond or a letter of credit payable to the County of Fairfax to ensure preservation and/or replacement of the trees for which a tree value has been determined in accordance with the Proffer above (the "Bonded Trees") that die or are dying due to unauthorized construction activities. The letter of credit or cash deposit shall be equal to 50% of the replacement value of the Bonded Trees. At any time prior to final bond release, should any bonded Trees die, be removed, or are determined to be dying by UFMD, DPWES, due to unauthorized construction activities, the Applicant shall replace such trees at its expense. The replacement trees shall be of equivalent size, species and/or canopy cover as approved by UFMD, DPWES. In addition to this replacement obligation, the Applicant shall also make a payment to Fairfax County equal to the value of any Bonded Tree that is dead or dying or improperly removed due to unauthorized activity. This payment shall be determined based on the Trunk Formula Method and

paid to a fund established by the County for furtherance of tree preservation objectives. Upon release of the bond any amount remaining in the tree bonds required by this proffer shall be returned/released to the Applicant.

Privacy Screening: Homes to the north, west and south will have privacy screening trees in substantial conformity as shown on the Generalized Development Plan dated May 8, 2012.

13. Heritage Resources:

Prior to subdivision plan approval, the Applicant shall conduct a Phase I archaeological study on those areas of the Property identified by CRMPS of the Fairfax County Park Authority ("CRMPS") and provide the results of such study for the review and approval of CRMPS. The study shall be conducted by a qualified archaeological professional. If the Phase I study concludes that an additional Phase II study of the Property is warranted, the Applicant shall complete said study and provide the results to CRMPS; however, submission of the Phase II study to CRMPS shall not be a pre-condition of subdivision plan approval. If the Phase II study concludes that additional Phase III evaluation and/or recovery is warranted, the Applicant shall also complete said work in consultation and coordination with CRMPS; however, any such Phase III work shall not be a pre-condition of subdivision plan approval.

14. Interior Noise Abatement:

In order to achieve a maximum interior noise level of approximately 45dBA Ldn, residential units on Lots 1 to 3 located within one hundred and six (106) feet from the existing centerline of Cedar Lane that may experience noise levels between 65 and 70 dBA Ldn as determined by the DPWES, will be constructed with the following measures to mitigate the impact of highway noise:

- (i) Construction materials and techniques known to have physical properties or characteristics suitable to achieve a Sound Transmission Classification (STC) of at least 45 for exterior walls of residential buildings; and
- (ii) Doors and glazing shall have a laboratory STC rating of at least 37 unless glazing constitute more than 20 percent of any façade exposed to noise levels of DNL 65 dBA or above. If doors, windows and other glazed areas constitute more than 20 percent of an exposed façade, then the glazing of such features shall have an STC rating of at least 45.
- (iii) Measures to seal and caulk between surfaces should follow methods approved by the American Society for Testing and Materials to minimize sound transmission.

15. Lighting and Signs:

- a. All exterior lighting shall be in conformance with Part 9 of Article 14 of the Zoning Ordinance.

- b. No temporary signs (including "Popsicle" style paper or cardboard signs) which are prohibited by Article 12 of the Zoning Ordinance, and no signs which are prohibited by Chapter 7 of Title 33.1 or Chapter 8 of Title 46.2 of the Code of Virginia shall be placed on or off-site by the Applicant or at the Applicant's direction to assist in the initial marketing and sale of homes on the Property. Furthermore, the Applicant shall direct its agents and employees involved in the marketing and/or home sales for the Property to adhere to this Proffer.

16. Energy Saver Program:

The new dwelling units shall be constructed to achieve certification in accordance with the EarthCraft House Program as demonstrated through documentation provided to DPWES and DPZ prior to the issuance of the residential use permit (RUP) for each new home.

17. Telecommuting:

All dwellings shall be pre-wired with broadband, high capacity data/network connections in multiple rooms, in addition to standard phone lines.

18. Other:

During the development of the subject site, the telephone number of the site superintendent that shall be present on-site during construction shall be posted for all surrounding residents to obtain throughout the development of the Property.

Outdoor construction activity shall be limited to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday and 8:00 a.m. and 5:00 p.m. on Saturdays. No outdoor construction activities shall be permitted on Sundays or on Federal holidays. The site superintendent shall notify all employees and subcontractors of these hours of operation and shall ensure that the hours of operation are respected by all employees and subcontractors. Construction hours shall be posted on-site in both English and Spanish. This proffer applies to the original construction only and not to future additions and renovations by homeowners.

PROFFERS - RZ 2009-PR-022
APPLICANT:

James Hollingsworth
Owner

REZONING AFFIDAVIT

DATE: 31 Aug 2011
(enter date affidavit is notarized)

I, JAMES M. HOLLINGSWORTH, do hereby state that I am an
(enter name of applicant or authorized agent)

(check one) ☒ applicant
☐ applicant's authorized agent listed in Par. 1(a) below

106084a

in Application No.(s): RZ 2009-PR-022
(enter County-assigned application number(s), e.g. RZ 88-V-001)

and that, to the best of my knowledge and belief, the following information is true:

1(a). The following constitutes a listing of the names and addresses of all **APPLICANTS, TITLE OWNERS, CONTRACT PURCHASERS, and LESSEES** of the land described in the application,* and, if any of the foregoing is a **TRUSTEE,**** each **BENEFICIARY** of such trust, and all **ATTORNEYS and REAL ESTATE BROKERS**, and all **AGENTS** who have acted on behalf of any of the foregoing with respect to the application:

(NOTE: All relationships to the application listed above in **BOLD** print must be disclosed. Multiple relationships may be listed together, e.g., **Attorney/Agent, Contract Purchaser/Lessee, Applicant/Title Owner**, etc. For a multiparcel application, list the Tax Map Number(s) of the parcel(s) for each owner(s) in the Relationship column.)

NAME (enter first name, middle initial, and last name)	ADDRESS (enter number, street, city, state, and zip code)	RELATIONSHIP(S) (enter applicable relationships listed in BOLD above)
JAMES M. HOLLINGSWORTH	104 YEONAS DRIVE S.W, VIENNA, VA 22180	APPLICANT/TITLE OWNER
THAO N. HOLLINGSWORTH	(SAME)	TITLE OWNER
TUAN V. NGUYEN	120 KINGSLEY RD., VIENNA, VA 22180	AGENT

(check if applicable) ☐ There are more relationships to be listed and Par. 1(a) is continued on a "Rezoning Attachment to Par. 1(a)" form.

* In the case of a condominium, the title owner, contract purchaser, or lessee of 10% or more of the units in the condominium.

** List as follows: Name of trustee, Trustee for (name of trust, if applicable), for the benefit of: (state name of each beneficiary).

REZONING AFFIDAVIT

DATE: 31 Aug 2011
(enter date affidavit is notarized)

106084a

for Application No. (s): RZ 2009-PR-022
(enter County-assigned application number(s))

- 1(b). The following constitutes a listing*** of the **SHAREHOLDERS** of all corporations disclosed in this affidavit who own 10% or more of any class of stock issued by said corporation, and where such corporation has 10 or less shareholders, a listing of all of the shareholders, and if the corporation is an owner of the subject land, all of the OFFICERS and DIRECTORS of such corporation:

(NOTE: Include **SOLE PROPRIETORSHIPS, LIMITED LIABILITY COMPANIES, and REAL ESTATE INVESTMENT TRUSTS** herein.)

CORPORATION INFORMATION

NAME & ADDRESS OF CORPORATION: (enter complete name, number, street, city, state, and zip code)

N/A

DESCRIPTION OF CORPORATION: (check one statement)

- ☐ There are 10 or less shareholders, and all of the shareholders are listed below.
- ☐ There are more than 10 shareholders, and all of the shareholders owning 10% or more of any class of stock issued by said corporation are listed below.
- ☐ There are more than 10 shareholders, but no shareholder owns 10% or more of any class of stock issued by said corporation, and no shareholders are listed below.

NAMES OF SHAREHOLDERS: (enter first name, middle initial, and last name)

NAMES OF OFFICERS & DIRECTORS: (enter first name, middle initial, last name & title, e.g. **President, Vice President, Secretary, Treasurer, etc.**)

(check if applicable) ☐ There is more corporation information and Par. 1(b) is continued on a "Rezoning Attachment 1(b)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. *In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.* Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

REZONING AFFIDAVIT

DATE: 31 AUG 2011
(enter date affidavit is notarized)

106084a

for Application No. (s): RZ 2009-PR-022
(enter County-assigned application number(s))

1(c). The following constitutes a listing*** of all of the **PARTNERS**, both **GENERAL** and **LIMITED**, in any partnership disclosed in this affidavit:

PARTNERSHIP INFORMATION

PARTNERSHIP NAME & ADDRESS: (enter complete name, number, street, city, state and zip code)

N/A

(check if applicable) ☐ The above-listed partnership has no limited partners.

NAMES AND TITLE OF THE PARTNERS (enter first name, middle initial, last name, and title, e.g. General Partner, Limited Partner, or General and Limited Partner)

(check if applicable) ☐ There is more partnership information and Par. 1(c) is continued on a "Rezoning Attachment to Par. 1(c)" form.

*** All listings which include partnerships, corporations, or trusts, to include the names of beneficiaries, must be broken down successively until: (a) only individual persons are listed or (b) the listing for a corporation having more than 10 shareholders has no shareholder owning 10% or more of any class of stock. *In the case of an APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land that is a partnership, corporation, or trust, such successive breakdown must include a listing and further breakdown of all of its partners, of its shareholders as required above, and of beneficiaries of any trusts. Such successive breakdown must also include breakdowns of any partnership, corporation, or trust owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER or LESSEE* of the land. Limited liability companies and real estate investment trusts and their equivalents are treated as corporations, with members being deemed the equivalent of shareholders; managing members shall also be listed.* Use footnote numbers to designate partnerships or corporations, which have further listings on an attachment page, and reference the same footnote numbers on the attachment page.

REZONING AFFIDAVIT

DATE: 31 Aug 2011
(enter date affidavit is notarized)

106084a

for Application No. (s): RZ 2009-PR-022
(enter County-assigned application number(s))1(d). One of the following boxes **must** be checked:

☐ In addition to the names listed in Paragraphs 1(a), 1(b), and 1(c) above, the following is a listing of any and all other individuals who own in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE*** of the land:

☒ Other than the names listed in Paragraphs 1(a), 1(b), and 1(c) above, no individual owns in the aggregate (directly and as a shareholder, partner, and beneficiary of a trust) 10% or more of the **APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE*** of the land.

2. That no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household owns or has any financial interest in the subject land either individually, by ownership of stock in a corporation owning such land, or through an interest in a partnership owning such land.

EXCEPT AS FOLLOWS: (**NOTE:** If answer is none, enter "NONE" on the line below.)

NONE

(check if applicable) ☐ There are more interests to be listed and Par. 2 is continued on a "Rezoning Attachment to Par. 2" form.

REZONING AFFIDAVIT

DATE: 31 AUG 2011
(enter date affidavit is notarized)

106084a

for Application No. (s): RZ 2009-PR-022
(enter County-assigned application number(s))

3. That within the twelve-month period prior to the public hearing of this application, no member of the Fairfax County Board of Supervisors, Planning Commission, or any member of his or her immediate household, either directly or by way of partnership in which any of them is a partner, employee, agent, or attorney, or through a partner of any of them, or through a corporation in which any of them is an officer, director, employee, agent, or attorney or holds 10% or more of the outstanding bonds or shares of stock of a particular class, has, or has had any business or financial relationship, other than any ordinary depositor or customer relationship with or by a retail establishment, public utility, or bank, including any gift or donation having a value of more than \$100, singularly or in the aggregate, with any of those listed in Par. 1 above.

EXCEPT AS FOLLOWS: (NOTE: If answer is none, enter "NONE" on line below.)

NONE

(NOTE: Business or financial relationships of the type described in this paragraph that arise after the filing of this application and before each public hearing must be disclosed prior to the public hearings. See Par. 4 below.)

(check if applicable) ☐ There are more disclosures to be listed and Par. 3 is continued on a "Rezoning Attachment to Par. 3" form.

4. That the information contained in this affidavit is complete, that all partnerships, corporations, and trusts owning 10% or more of the APPLICANT, TITLE OWNER, CONTRACT PURCHASER, or LESSEE* of the land have been listed and broken down, and that prior to each and every public hearing on this matter, I will reexamine this affidavit and provide any changed or supplemental information, including business or financial relationships of the type described in Paragraph 3 above, that arise on or after the date of this application.

WITNESS the following signature:

(check one)

☒ Applicant☐ Applicant's Authorized Agent

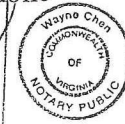
JAMES M. HOLLINGSWORTH

(type or print first name, middle initial, last name, and title of signee)

Subscribed and sworn to before me this 31st day of August, 2011, in the State/Comm. of Virginia, County/City of Fairfax.

My commission expires: 05/21/2012

Notary Public



Wayne Chen
Notary Public
Commonwealth of Virginia
My Commission Expires 05/21/2012
Commission ID# 7070912

*Classic Construction of Northern Virginia, Inc.
405 Walker St. SW, Vienna, VA 22180*

RECEIVED
Department of Planning & Zoning
MAR 02 2009
Zoning Evaluation Division

February 26, 2009

Eileen McLane, Zoning Administrator
ATTN: Barbara A. Byron, ZED
Fairfax County Department of Planning and Zoning
12055 Government Center Parkway, Suite 801
Fairfax, VA 22035

Re: Statement of Justification, Application for Rezoning from R-1 to R-4; 2818 Cedar Lane, Vienna, VA; Fairfax County Tax Map No. 49-1 ((4)), Parcel 16A; 1.4535 Acres

Dear Ms. Byron:

This letter is written on behalf of the Applicant, Classic Construction of Northern Virginia, Inc. in support of the application to rezone the above referenced parcel located in the Providence District from the R-1 District to the R-4 District as defined by the Zoning Ordinance of Fairfax County.

PROPERTY DESCRIPTION:

The subject property and site contains 1.435 acres of land located on the west side of Cedar Lane immediately just south of the bridge over Interstate 66. The parcel is currently improved by a 2-story frame dwelling and shed. The land rises gently in topography from Cedar Lane to the rear of the property. The site is perfectly rectangular in shape (210 feet x 301.50 feet). The property is erroneously shown on the Fairfax County Tax Map as including portions of 16B2. While most of the useable area of the property is cleared, the site contains isolated stands of trees.

The property is bordered on the north by R-4 development on Cedar Meadow Court; on the south by residential development in the R-1 District; on the east by residential development in the R-1, R-2 and R-3 District, and on the west by residential development in the R-1 and R-2 District. The areas surrounding the subject site, as well as portions of the greater neighborhood, have undergone substantial redevelopment in the last decade.

THE CURRENT PROPOSAL:

The Applicant proposes to rezone the property from the current R-1 District to R-4, razing the existing dwelling and developing/building three (3) new residential dwellings on lots each containing 19,697 square feet of land. Site density for the proposed lots is 2.06 dwelling units per acre. The new dwellings would access Cedar Lane via a common entrance which connects to individual driveways for the lots, minimizing the number of potential access points onto the street.

Storm water management is designed to be controlled by several on-site bio-retention facilities, designed to retain and release water at pre-development rates. The Applicant proposes these facilities as environmentally sensitive features.

Eileen McLane, Zoning Administrator
ATTN: Barbara A. Byron, ZED
February 26, 2009
Page 2

Selected trees on the property will be designed for preservation, and approved measures to protect them will be taken during site grading and development consistent with the practices of the local District as supervised/monitored by the Division of Urban Forestry.

RELATIONSHIP TO THE COMPREHENSIVE PLAN:

The Applicant's proposal is consistent with the Comprehensive Plan recommendations and compatible with the other development in the immediate neighborhood. In terms of site density, the proposal is significantly below the Plan's recommendations.

The property is located in the Area II portion of the Plan in the Vienna Planning District, and the V2 Cedar Community Planning Sector. The site is not specifically mentioned in the Plan's text; therefore, the general guidance of the Plan text is relied upon in support of this application. At page 362, of the Area II text, it is stated: "The Cedar sector is largely developed as stable residential neighborhoods. Infill development in these neighborhoods should be of a compatible use, type and intensity in accordance with the guidance provided by the Policy Plan under Land Use Objectives 8 and 14." The Comprehensive Plan Map depicts the property in a narrow "pocket" of land recommended for development in the range of 3-4 dwelling units per acre.

The proposal of three (3) lots on 1.435 acres of land at site density of 2.06 dwelling units per acre is, indeed, consistent with these recommendations in use, type and intensity. Perhaps, it could be said that the proposal exceeds the criteria of the Plan in that the proposed density is significantly below that recommended, but achieves the overall guide of compatibility with surrounding development.

CONCLUSION

It is submitted that the proposed rezoning is consistent with and compatible with the surrounding development in the immediate neighborhood, and is, moreover, consistent with the guidelines/recommendations of the Comprehensive Plan. The approval of this proposal will complete a line of re-development which has occurred on the north and south of the subject site, and will provide a uniform street scene in this area of Cedar Lane.

The Applicant, therefore, submits this Statement of Justification and other supporting materials, including the filing fee required for processing this application, and requests that the same be forwarded to Zoning Staff for review and the ultimate scheduling of public hearings before the Planning Commission and the Board of Supervisors. Please let us know if any further information is required.

Very Truly Yours,

Hoang V. Nguyen





County of Fairfax, Virginia

MEMORANDUM

DATE: April 2, 2012

TO: Barbara Berlin, Director
Zoning Evaluation Division, DPZ

FROM: Pamela G. Nee, Chief *PAN*
Environment and Development Review Branch, DPZ

SUBJECT: ENVIRONMENTAL ASSESSMENT for: RZ 2009-PR-022
Hollingsworth Property

This memorandum, prepared by Mary Ann Welton, includes citations from the Comprehensive Plan that provide guidance for the evaluation of the subject rezoning application for this property and the revised Generalized Development Plan (GDP) dated March 12, 2012. Possible solutions to remedy identified issues are suggested. Other solutions may be acceptable, provided that they achieve the desired degree of mitigation and are in harmony with Plan policies.

COMPREHENSIVE PLAN CITATIONS:

The Comprehensive Plan is the basis for the evaluation of this application. The assessment of the proposal for conformity with the environmental recommendations of the Comprehensive Plan is guided by the following citations from the Plan:

The Fairfax County Comprehensive Plan, Policy Plan, 2011 Edition, Environment section as amended through July 27, 2010, page 7-9 states:

“Objective 2: Prevent and reduce pollution of surface and groundwater resources. Protect and restore the ecological integrity of streams in Fairfax County.

Policy a. Maintain a best management practices (BMP) program for Fairfax County and ensure that new development and redevelopment complies with the County’s best management practice (BMP) requirements. . . .

Policy j. Regulate land use activities to protect surface and groundwater resources. . . .

Policy k. For new development and redevelopment, apply better site design and low impact design (LID) techniques such as those described below, and pursue commitments to reduce stormwater runoff volumes and peak flows, to increase groundwater recharge, and to increase preservation of undisturbed areas. In order to minimize the impacts that new development and redevelopment projects may have on the County's streams, some or all of the following practices should be considered where not in conflict with land use compatibility objectives:

- Minimize the amount of impervious surface created.
- Site buildings to minimize impervious cover associated with driveways and parking areas and to encourage tree preservation.
- Where feasible, convey drainage from impervious areas into pervious areas. . . .
- Encourage fulfillment of tree cover requirements through tree preservation instead of replanting where existing tree cover permits. Commit to tree preservation thresholds that exceed the minimum Zoning Ordinance requirements. . . .
- Encourage the use of innovative BMPs and infiltration techniques of stormwater management where site conditions are appropriate, if consistent with County requirements.
- Apply nonstructural best management practices and bioengineering practices where site conditions are appropriate, if consistent with County requirements. . . .
- Maximize the use of infiltration landscaping within streetscapes consistent with County and State requirements."

The Fairfax County Comprehensive Plan, Policy Plan, 2011 Edition, Environment section as amended through July 27, 2010, page 10 states:

"Objective 3: Protect the Potomac Estuary and the Chesapeake Bay from the avoidable impacts of land use activities in Fairfax County.

Policy a. Ensure that new development and redevelopment complies with the County's Chesapeake Bay Preservation Ordinance...."

The Fairfax County Comprehensive Plan Policy Plan, 2011 Edition, Environment section as amended through July 27, 2010, pages 11 and 12 state:

“Objective 4: Minimize human exposure to unhealthful levels of transportation generated noise.”

Policy a: Regulate new development to ensure that people are protected from unhealthful levels of transportation noise. . .

New development should not expose people in their homes, or other noise sensitive environments, to noise in excess of DNL 45 dBA, or to noise in excess of DNL 65 dBA in the outdoor recreation areas of homes. To achieve these standards new residential development in areas impacted by highway noise between DNL 65 and 75 dBA will require mitigation. New residential development should not occur in areas with projected highway noise exposures exceeding DNL 75 dBA.”

Fairfax County Comprehensive Plan, 2011 Edition, Policy Plan, Environment, as amended through July 27, 2010, page 18 states:

“Objective 10: Conserve and restore tree cover on developed and developing sites. Provide tree cover on sites where it is absent prior to development.”

Policy a: Protect or restore the maximum amount of tree cover on developed and developing sites consistent with planned land use and good silvicultural practices.

Policy b: Require new tree plantings on developing sites which were not forested prior to development and on public rights of way....”

Fairfax County Comprehensive Plan, 2011 Edition, Policy Plan, Environment, as amended through July 27, 2010, pages 19 and 20 state:

“Objective 13: Design and construct buildings and associated landscapes to use energy and water resources efficiently and to minimize short- and long-term negative impacts on the environment and building occupants.”

Policy a. Consistent with other Policy Plan objectives, encourage the application of energy conservation, water conservation and other green building practices in the design and construction of new development and redevelopment projects. These practices can include, but are not limited to:

- Environmentally-sensitive siting and construction of development.

- Application of low impact development practices, including minimization of impervious cover (See Policy k under Objective 2 of this section of the *Policy Plan*).
- Optimization of energy performance of structures/energy-efficient design.
- Use of renewable energy resources.
- Use of energy efficient appliances, heating/cooling systems, lighting and/or other products.
- Application of water conservation techniques such as water efficient landscaping and innovative wastewater technologies.
- Reuse of existing building materials for redevelopment projects.
- Recycling/salvage of non-hazardous construction, demolition, and land clearing debris.
- Use of recycled and rapidly renewable building materials.
- Use of building materials and products that originate from nearby sources.
- Reduction of potential indoor air quality problems through measures such as increased ventilation, indoor air testing and use of low-emitting adhesives, sealants, paints/coatings, carpeting and other building materials.

Encourage commitments to implementation of green building practices through certification under established green building rating systems (e.g., the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) program or other comparable programs with third party certification). Encourage commitments to the attainment of the ENERGY STAR® rating where applicable and to ENERGY STAR qualification for homes. Encourage the inclusion of professionals with green building accreditation on development teams. Encourage commitments to the provision of information to owners of buildings with green building/energy efficiency measures that identifies both the benefits of these measures and their associated maintenance needs. . . ."

ENVIRONMENTAL ANALYSIS

This section characterizes the environmental concerns raised by an evaluation of this site and the proposed land use. Solutions are suggested to remedy the concerns that have been identified by

staff. There may be other acceptable solutions. Particular emphasis is given to opportunities provided by this application to conserve the County's remaining natural amenities.

Water Quality Protection: The 1.45 acre subject property falls within the Accotink Creek Watershed. Three single family lots are proposed on the revised development plan. To meet water quality and quantity control requirements three individual bioretention facilities are proposed for each of the three proposed lots. Individual facilities, as opposed to one facility for the entire subdivision placed within an out lot will require a modification of the Public Facilities Manual requirements.

The outfall narrative indicates that the site drainage path is characterized by some obstructions and a significant area of impervious surface. Ultimately the runoff flows to a 30' by 6" deep drainage concrete ditch located southwest of the subject property. The outfall narrative does not conclusively state that the outfall is adequate.

The adequacy of stormwater management/best management practice (SWM/BMP) facilities and outfall will be subject to review and approval by the Department of Public Works and Environmental Services (DPWES).

Traffic Noise: The proposed houses will be impacted by traffic noise from Cedar Lane. Consistent with Comprehensive Plan guidance regarding noise mitigation, the applicant has committed to utilizing building materials which are sufficient to mitigate interior areas of the houses to 45 dBA L_{dn} or less.

Tree Preservation and Limits of Clearing and Grading: The subject property is characterized by significant existing vegetation. The applicant is encouraged to tighten the limits of clearing and grading and work with the Urban Forestry Management Branch staff to maximize tree preservation area and to commit to a landscape plan which proposes restoration of appropriate native tree and plant species after construction of the subdivision.

Green Building Certification: The subject property is planned for residential use at 3-4 dwelling units per acre. The applicant is seeking to develop three single-family detached dwellings at 2.21 dwelling units per acre. In accordance with the County's green building policy, the applicant is strongly encouraged to commit to the attainment of Energy Star Qualified Homes or Earthcraft House prior to the issuance of a residential use permit (RUP) for each dwelling.

COUNTYWIDE TRAILS PLAN

The Countywide Trails Plan Map shows a major paved trail (8 feet or more in width, asphalt or concrete) along the west side of Cedar Lane adjacent to the subject property. The development plan depicts an 8 foot-wide asphalt trail in this approximate location.

PGN: MAW




County of Fairfax, Virginia

MEMORANDUM

May 17, 2012

TO: St. Clair Williams, Staff Coordinator
Zoning Evaluation Division, DPZ

FROM: Todd Nelson, Urban Forester II
Forest Conservation Branch, DPWES 

SUBJECT: James Hollingsworth Property; RZ 2009-PR-022

RE: Request for assistance dated May 8, 2012

This review is based on the Generalized Development Plan (GDP) RZ 2009-PR-022 stamped "Received, Department of Planning and Zoning, May 8, 2012".

General Comment: Urban Forest Management Division comments and recommendations on the previously submitted GDP were provided to DPZ in the memos dated December 27, 2011, and April 3, 2012. Additional comments and recommendations are provided to address tree preservation, landscaping, and proffer language.

- 1. Comment:** The proposed limits of clearing and grading at the southwest corner of proposed Lot 1 will provide minimal protection for the existing American holly tree (Tree #T-1143) proposed for preservation.

Recommendation: The proposed limits of clearing and grading at the southwest corner of Lot 1 should be revised to preserve at least 65% of the critical root system of tree T-1143 to adequately protect this tree from construction activities.

- 2. Comment:** The proposed limits of clearing and grading at the northern portion of proposed Lot 3 appear to be located along the northern property boundary and adjacent to existing off-site landscape trees located on Tax Map No.: 049-1 ((26)) 0002.

Recommendation: The proposed limits of clearing and grading at the northern portion of proposed Lot 3, adjacent to Tax Map No.: 049-1 ((26)) 0002, should be moved off the shared property boundary and at least 5 feet to the south to protect the existing off-site landscape trees from construction damage, and to provide a larger tree save for Tree #T-1167.

- 3. Comment:** The 1 in. caliper size specification provide for the evergreen trees proposed to be planted throughout the site, as indicated in the Schedule A Plant Schedule, is unclear.

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Land Development Services, Urban Forest Management Division
12055 Government Center Parkway, Suite 518
Fairfax, Virginia 22035-5503
Phone 703-324-1770, TTY: 703-324-1877, Fax: 703-803-7769
www.fairfaxcounty.gov/dpwes



Recommendation: Proposed evergreen trees should be specified by height.

4. **Comment:** Given the nature of the tree cover located on and adjacent to this site, and depending upon the ultimate development configuration provided for the GDP, several proffers will be instrumental in assuring adequate tree preservation and protection throughout the development process.

Recommendation: Recommend the following proffer language to ensure effective tree preservation:

Tree Preservation: "The applicant shall submit a Tree Preservation Plan and Narrative as part of the first and all subsequent site plan submissions. The preservation plan and narrative shall be prepared by a Certified Arborist or a Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES.

The tree preservation plan shall include a tree inventory that identifies the location, species, critical root zone, size, crown spread and condition analysis percentage rating for all individual trees to be preserved, as well as all on and off-site trees, living or dead with trunks 12 inches in diameter and greater (measured at 4 ½ -feet from the base of the trunk or as otherwise allowed in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture) located within 25 feet to either side of the limits of clearing and grading. The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside of the limits of clearing and grading shown on the GDP and those additional areas in which trees can be preserved as a result of final engineering. The tree preservation plan and narrative shall include all items specified in PFM 12-0507 and 12-0509. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization, and others as necessary, shall be included in the plan."

Tree Preservation Walk-Through. "The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's certified arborist or landscape architect shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-

grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions.”

Limits of Clearing and Grading. “The Applicant shall conform strictly to the limits of clearing and grading as shown on the GDP, subject to allowances specified in these proffered conditions and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the GDP, they shall be located in the least disruptive manner necessary as determined by the UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for any areas protected by the limits of clearing and grading that must be disturbed for such trails or utilities.”

Tree Preservation Fencing: “All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the demolition, and phase I & II erosion and sediment control sheets, as may be modified by the “Root Pruning” proffer below.

All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. The installation of all tree protection fencing shall be performed under the supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction activities shall occur until the fencing is installed correctly, as determined by the UFMD, DPWES.”

Root Pruning. “The Applicant shall root prune, as needed to comply with the tree preservation requirements of these proffers. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the subdivision plan submission. The details for these treatments shall be reviewed and approved by the UFMD, DPWES, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:

- Root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches.
- Root pruning shall take place prior to any clearing and grading, or demolition of structures.

- Root pruning shall be conducted with the supervision of a certified arborist.
- An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete.”

Demolition of Existing Structures. “The demolition of all existing features and structures within areas protected by the limits of clearing and grading areas shown on the GDP shall be done by hand without heavy equipment and conducted in a manner that does not impact individual trees and/or groups of trees that are to be preserved as reviewed and approved by the UFMD, DPWES.”

Site Monitoring. “During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as proffered and as approved by the UFMD. The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist to monitor all construction and demolition work and tree preservation efforts in order to ensure conformance with all tree preservation proffers, and UFMD approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES.”

Please contact me at 703-324-1770 should you have any questions.

TLN/
UFMD #: 147731

cc: RA File
DPZ File




County of Fairfax, Virginia

MEMORANDUM

April 3, 2012

TO: St. Clair Williams, Staff Coordinator
Zoning Evaluation Division, DPZ

FROM: Todd Nelson, Urban Forester II
Forest Conservation Branch, DPWES 

SUBJECT: James Hollingsworth Property; RZ 2009-PR-022

RE: Request for assistance dated March 26, 2012

This review is based on the Generalized Development Plan (GDP) RZ 2009-PR-022 stamped "Received, Department of Planning and Zoning, March 13, 2012".

General Comment: Urban Forest Management Division comments and recommendations on the previously submitted GDP were provided to DPZ in the memo dated December 27, 2011. Several comments and recommendations contained in the above referenced memo were not adequately addressed and are identical to several of the following comments and recommendations. Additional comments and recommendations are provided to address the 10-year tree canopy requirements and landscaping.

1. **Comment:** In General Note 14 on sheet 2, the 20% tree cover requirement is incorrect and is not in conformance with the new Zoning Ordinance and PFM requirements. The 10-year tree canopy requirement for an R-4 property is 25%.

Recommendation: General Note 14 should be revised to reference the 25% tree canopy requirement for this site.

2. **Comment:** An existing vegetation map (EVM) in conformance with Zoning Ordinance Chapter 112, Article 20 and PFM 12-0506, has not been provided as part of this application. Areas of all applicable cover types identified in PFM Table 12.12 have not been delineated; primary tree species found in each cover type have not been listed; and a statement regarding the general health and condition of the vegetation have not been provided.

Recommendation: Provide an EVM that depicts the location of any of the cover types identified in PFM Table 12.2 and one that meets the requirements of Zoning Ordinance Chapter 112, Article 20 and PFM 12-0506. The EVM submitted as part of the GDP must accurately delineate all areas of the cover types, provide a statement regarding the

Department of Public Works and Environmental Services
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www.fairfaxcounty.gov/dpwes



successional stage of the vegetation, list the primary tree species, include a statement regarding the general health and condition of the vegetation, and include all other required elements of the Zoning Ordinance and Public Facilities Manual.

3. **Comment:** The 16,243 square feet claimed as the total canopy area of provided through tree preservation is unclear as it appears trees in poor condition (Tree T-1152) are proposed for preservation with their 10-year tree canopies included in the tree preservation calculations.

Recommendation: Trees designated for preservation shall be in fair to excellent condition. Tree T-1152 is in poor condition, does not meet the pre-development tree condition standards for preservation, should be identified for removal, and the 10-year tree canopy removed from the 'total canopy area provided through tree preservation' calculations.

4. **Comment:** The southern portion of the site contains several mature white oak trees as well as several hickory trees and an American holly. These trees appear to be in fair to good condition and should be considered for preservation.

Recommendation: A tree save area should be provided at the southern portion of the site to preserve the existing white oak, hickory, and American holly trees.

5. **Comment:** The proposed limits of clearing and grading at the northern portion of the site will provide minimal preservation for the existing off-site red oak trees located on Tax Map Nos.: 049-1 ((26)) 0003, 0002, and 0001.

Recommendation: A contiguous 15-foot wide undisturbed buffer should be provided along the entire length of the northern property boundary to protect the existing off-site red oak trees from construction damage.

6. **Comment:** It is unclear why tree T-42 is located inside the area to be disturbed and there appears to be an opportunity to provide a larger save area adjacent to tree T-1144.

Recommendation: The proposed limits of clearing and grading adjacent to Tree T-42 should be adjusted to incorporate this tree into the tree save area and tree T-42 should remain identified as to be removed. The proposed limits of clearing and grading adjacent to tree T-1144 should be moved at least 5 feet to the east and extend directly to the southern property boundary to provide a larger save area.

7. **Comment:** There appears to be an opportunity to provide additional landscaping throughout this site.

Recommendation: In order to facilitate the creation of a convenient, attractive and harmonious community; to conserve natural resources including adequate air and water; to

ameliorate potential storm water drainage problems; to reduce the level of carbon dioxide and return pure oxygen to the atmosphere; to prevent soil erosion; and to provide additional shade, a landscape plan should be submitted that shows a variety of native and desirable tree species, of various sizes, planted throughout the site. All trees proposed to be planted should be identified as Category I, II, III, or IV deciduous trees and/or Category I, II, III, or IV evergreen trees. In addition, minimum planting areas for proposed trees should be provided in accordance with PFM 12-0601.1B

Opportunities to receive additional tree canopy credits in exchange for the planting of trees in a manner that will provide specific environmental and ecological benefits, or for the use of species that are native to Fairfax County, or for the use of species that are resistant to diseases, pests, decay and the negative impacts imposed by harsh conditions should be considered. See PFM sections 12-0510.4B thru 12-0510.4B(6) for opportunities for additional 10-year tree canopy credits.

8. **Comment:** Given the nature of the tree cover located on and adjacent to this site, and depending upon the ultimate development configuration provided for the GDP, several proffers will be instrumental in assuring adequate tree preservation and protection throughout the development process.

Recommendation: Recommend the following proffer language to ensure effective tree preservation:

Tree Preservation: "The applicant shall submit a Tree Preservation Plan and Narrative as part of the first and all subsequent site plan submissions. The preservation plan and narrative shall be prepared by a Certified Arborist or a Registered Consulting Arborist, and shall be subject to the review and approval of the Urban Forest Management Division, DPWES.

The tree preservation plan shall include a tree inventory that identifies the location, species, critical root zone, size, crown spread and condition analysis percentage rating for all individual trees to be preserved, as well as all on and off-site trees, living or dead with trunks 12 inches in diameter and greater (measured at 4 ½ -feet from the base of the trunk or as otherwise allowed in the latest edition of the Guide for Plant Appraisal published by the International Society of Arboriculture) located within 25 feet to either side of the limits of clearing and grading. The tree preservation plan shall provide for the preservation of those areas shown for tree preservation, those areas outside of the limits of clearing and grading shown on the GDP and those additional areas in which trees can be preserved as a result of final engineering. The tree preservation plan and narrative shall include all items specified in PFM 12-0507 and 12-0509. Specific tree preservation activities that will maximize the survivability of any tree identified to be preserved, such as: crown pruning, root pruning, mulching, fertilization, and others as necessary, shall be included in the plan."

Tree Preservation Walk-Through. "The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist, and shall have the limits of clearing and grading marked with a continuous line of flagging prior to the walk-through meeting. During the tree-preservation walk-through meeting, the Applicant's certified arborist or landscape architect shall walk the limits of clearing and grading with an UFMD, DPWES, representative to determine where adjustments to the clearing limits can be made to increase the area of tree preservation and/or to increase the survivability of trees at the edge of the limits of clearing and grading, and such adjustment shall be implemented. Trees that are identified as dead or dying may be removed as part of the clearing operation. Any tree that is so designated shall be removed using a chain saw and such removal shall be accomplished in a manner that avoids damage to surrounding trees and associated understory vegetation. If a stump must be removed, this shall be done using a stump-grinding machine in a manner causing as little disturbance as possible to adjacent trees and associated understory vegetation and soil conditions."

Limits of Clearing and Grading. "The Applicant shall conform strictly to the limits of clearing and grading as shown on the GDP, subject to allowances specified in these proffered conditions and for the installation of utilities and/or trails as determined necessary by the Director of DPWES, as described herein. If it is determined necessary to install utilities and/or trails in areas protected by the limits of clearing and grading as shown on the GDP, they shall be located in the least disruptive manner necessary as determined by the UFMD, DPWES. A replanting plan shall be developed and implemented, subject to approval by the UFMD, DPWES, for any areas protected by the limits of clearing and grading that must be disturbed for such trails or utilities."

Tree Preservation Fencing: "All trees shown to be preserved on the tree preservation plan shall be protected by tree protection fence. Tree protection fencing in the form of four (4) foot high, fourteen (14) gauge welded wire attached to six (6) foot steel posts driven eighteen (18) inches into the ground and placed no further than ten (10) feet apart or, super silt fence to the extent that required trenching for super silt fence does not sever or wound compression roots which can lead to structural failure and/or uprooting of trees shall be erected at the limits of clearing and grading as shown on the demolition, and phase I & II erosion and sediment control sheets, as may be modified by the "Root Pruning" proffer below.

All tree protection fencing shall be installed after the tree preservation walk-through meeting but prior to any clearing and grading activities, including the demolition of any existing structures. The installation of all tree protection fencing shall be performed under the supervision of a certified arborist, and accomplished in a manner that does not harm existing vegetation that is to be preserved. Three (3) days prior to the commencement of any clearing, grading or demolition activities, but subsequent to the installation of the tree protection devices, the UFMD, DPWES, shall be notified and given the opportunity to inspect the site to ensure that all tree protection devices have been correctly installed. If it is determined that the fencing has not been installed correctly, no grading or construction

activities shall occur until the fencing is installed correctly, as determined by the UFMD, DPWES."

Root Pruning. "The Applicant shall root prune, as needed to comply with the tree preservation requirements of these proffers. All treatments shall be clearly identified, labeled, and detailed on the erosion and sediment control sheets of the subdivision plan submission. The details for these treatments shall be reviewed and approved by the UFMD, DPWES, accomplished in a manner that protects affected and adjacent vegetation to be preserved, and may include, but not be limited to the following:

- Root pruning shall be done with a trencher or vibratory plow to a depth of 18 inches.
- Root pruning shall take place prior to any clearing and grading, or demolition of structures.
- Root pruning shall be conducted with the supervision of a certified arborist.
- An UFMD, DPWES, representative shall be informed when all root pruning and tree protection fence installation is complete."

Demolition of Existing Structures. "The demolition of all existing features and structures within areas protected by the limits of clearing and grading areas shown on the GDP shall be done by hand without heavy equipment and conducted in a manner that does not impact individual trees and/or groups of trees that are to be preserved as reviewed and approved by the UFMD, DPWES."

Site Monitoring. "During any clearing or tree/vegetation/structure removal on the Applicant Property, a representative of the Applicant shall be present to monitor the process and ensure that the activities are conducted as proffered and as approved by the UFMD. The Applicant shall retain the services of a certified arborist or Registered Consulting Arborist to monitor all construction and demolition work and tree preservation efforts in order to ensure conformance with all tree preservation proffers, and UFMD approvals. The monitoring schedule shall be described and detailed in the Landscaping and Tree Preservation Plan, and reviewed and approved by the UFMD, DPWES."

Please contact me at 703-324-1770 should you have any questions.

TLN/
UFMD #: 147731

cc: RA File
DPZ File



County of Fairfax, Virginia

MEMORANDUM

DATE: May 11, 2012

TO: St. Clair Williams, Staff Coordinator
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Beth Forbes, Stormwater Engineer *BF*
Environmental and Site Review Division
Department of Public Works and Environmental Services

SUBJECT: Rezoning Application #RZ 2009-PR-022, Hollingsworth Property,
Generalized Development Plan dated May 8, 2012, LDS Project #24745-
ZONA-002-3, Tax Map #49-1-04-0016A, Providence District

We have reviewed the subject application and offer the following stormwater management comments.

Chesapeake Bay Preservation Ordinance (CBPO)

There is no Resource Protection Area (RPA) on this site.

Water quality controls are required for this development (PFM 6-0401.2A). A bioretention facility is depicted on each of the 3 lots. The construction of the facility on lot 3 will impact tree #1152. The location of the maintenance access pathway to the facility on lot 3 and its surface material have been identified. At the subdivision construction plan stage,

- a modification will be required to locate the facilities on an individual lots (PFM 6-1307.2) -- such a modification is likely to be conditionally approved;
- the BMP calculations may be required to use the Occoquan Method (PFM 6-0401.2A);
- the filter depth must be greater than 2.5 feet to accommodate trees, if trees are selected to be a part of the planting plan (PFM 6-1307.4N);
- there is likely to be stone underneath the filter to a depth of about 8 feet, notwithstanding the diagram on Sheet 5 (PFM 6-1307.6);
- the type of planting plan must be specified; and
- the planting plan must meet the PFM requirements in §6-1307.10G and §12-0515.1L.

Floodplain

There are no regulated floodplains on the property.

Downstream Drainage Complaints

Yard flooding has been reported downstream at 2837, 2839, 2843 and 2844 Maple Lane in the past. Basement flooding at 2840 Maple Lane has also been reported. All the downstream structure flooding complaints on file have been caused by blockages. Detention of the 100-year storm's runoff, or a proportional reduction, may be required at the subdivision plan stage



if downstream structures have flooded in the past or may be flooded in the future (PFM 6-0202.4 and -0203.5).

Stormwater Detention

The detention requirements are to be met by 3 bioretention basins. At the subdivision construction plan stage,

- the results of infiltration tests will be required (see the attachment to Technical Memorandum #10-4),
- if the detention method will be used to meet the adequate outfall requirements, the volume of the entire 1-year storm from the entire site must be detained for 24 hours (PFM 6-0203.4C(1)(i)), and
- it must be demonstrated the bioretention facilities have the detention volume necessary to meet the requirements of the detention method and, if necessary, to meet the requirements of PFM 6-0203.5 (as mentioned above).

Site Outfall

An outfall narrative has been provided. The outfall is inadequate. The applicant intends to meet the adequate outfall requirements through proportional improvement (PFM 6-0203.4C and 6-0203.5). At the subdivision construction plan stage, the

- the detention method's proportional improvement must be applied to the entire upstream area of each point of concentrated discharge and not just the area served by the stormwater facility (PFM 6-0203.4C(1)(ii)),
- a defined channel must be demonstrated to exist between any point of concentrated discharge and the perennial stream about 230 feet downstream of Cedarest Road (PFM 6-0203.4C(3)), and
- it must be demonstrated that any increase in non-concentrated runoff will have no adverse impact upon downstream properties even during a 100-year storm (PFM 6-0202.6 and -0202.7).

These comments are based on the 2011 version of the Public Facilities Manual (PFM). A new stormwater ordinance and updates to the PFM's stormwater requirements are being developed as a result of changes to state code (see 4VAC50-60 adopted May 24, 2011). The subdivision plan for this application may be required to conform to the updated PFM and the new ordinance.

Please contact me at 703-324-1720 if you require additional information.

BF/

cc: Fred Rose, Chief, Watershed Planning & Assessment Branch, Stormwater Planning Division, DPWES
Judy Cronauer, Branch Chief Central, Site Development & Inspections Division, DPWES
Zoning Application File



County of Fairfax, Virginia

MEMORANDUM

DATE: May 23, 2012

TO: Barbara Berlin, Director
Zoning Evaluation Division
Department of Comprehensive Planning

FROM: Angela Kadar Rodeheaver, Chief
Site Analysis Section
Department of Transportation

FILE: 3-4 (RZ 2009-PR-022)

SUBJECT: Transportation Impact Addendum # 3

REFERENCE: RZ 2009-PR-022: James Hollingsworth
Traffic Zone: 1526
Land Identification Map: 49-1 ((04)) 16A

Transmitted herewith are comments from the Department of Transportation with respect to the referenced application. These comments are based on the revised plat dated May 8, 2012 and proffer dated February 7, 2012.

The applicant proposes to rezone approximately 1.45 acres from the R-1 District and the R-3 District to subdivide a single lot into three lots.

This department has reviewed the subject application and offers the following comments:

- The applicant should provide frontage improvements (approximately 20-ft. from centerline), including curb and gutter, along their site on Cedar lane and extend this improvement to match and connect to the Cedar Woods Court entrance. If the curb and gutter installation for such an improvement inhibits acceptable drainage or adequate sight distance, a waiver for curb and gutter may be submitted and examined by FCDOT and VDOT. At this time VDOT has rejected the submitted subject waiver for frontage improvements along the site on Cedar Lane. Without approval of this waiver it is not recommended that the application go to public hearing.
- The proposed trail along the site is located within the VDOT right-of-way and should be of 10ft. width. The applicant is proposing an 8-ft. width trail and therefore should commit to maintain the trail.
- The applicant should commit to closing ½ of Cedar Lane at a time, and at times outside the daily peak hours. That is from 9 am to 3 pm. The maintenance and protection of traffic shall be provided according to strict regulations stated in the Federal Manual on Uniform Traffic Control Devices. If neighboring driveways are blocked by construction time over-runs or overnight road disrepair, the applicant shall provide the cost for lodgings for the family homes affected.

Fairfax County Department of Transportation
12055 Government Center Parkway, Suite 1034
Fairfax, VA 22035-5500
Phone: (703) 324-1100 TTY: (703) 324-1102
Fax: (703) 324 1450
www.fairfaxcounty.gov/fcdot



Barbara Berlin
May 23, 2012
Page two

- The applicant shall submit road closure plans at site plan.
- All neighboring driveway and entrances must be restored in-kind (as they originally were) when the final construction is completed. The applicant should submit a Cedar Lane driveway photo-log to the District Supervisor's office before any construction begins.
- The driveway for lot # 3 doesn't provide a proper turnaround for a vehicle.

cc: AKR;ak W:RZ2009PR022ClassicConstructionofNoVa




FAIRFAX COUNTY PARK AUTHORITY



M E M O R A N D U M

TO: Regina M. Coyle, Director
Zoning Evaluation Division
Department of Planning and Zoning

FROM: Sandy Stallman, Manager
Park Planning Branch, PDD 

DATE: November 10, 2009

SUBJECT: RZ 2009-PR-022, James Hollingsworth
Tax Map Number: 49-1 ((4)) 16A

BACKGROUND

The Park Authority staff has reviewed the proposed Development Plan dated October 1, 2009, for the above referenced application. The Development Plan shows three new single-family homes on a 1.45 acre parcel to be rezoned from R-1 to R-3. Based on an average single-family household size of 2.91 in the Vienna Planning District, the development could add six new residents (3 new – 1 existing = $2 \times 2.91 = 5.82$) to the Providence Supervisory District.

COMPREHENSIVE PLAN CITATIONS

1. Park Services and New Development (The Policy Plan, Parks and Recreation Objective 6, p. 8)

“Objective 6: Ensure the mitigation of adverse impacts to park and recreation facilities and service levels caused by growth and land development through the provision of proffers, conditions, contributions, commitments, and land dedication.”

“Policy a: Offset residential development impacts to parks and recreation resources, facilities and service levels based on the adopted facility service level standards (Appendix 2). The provision of suitable new park and recreational lands and facilities will be considered in the review of land development proposals in accordance with Residential Development Criteria - Appendix 9 of the Land Use element of the Countywide Policy Plan.”

“Policy b: To implement Policy a. above, residential land development should include provisions for contributions, or dedication, to the Park Authority of usable parkland and facilities, public trails, development of recreational facilities on

private open space, and/or provision of improvements at existing nearby park facilities.”

2. **Heritage Resources** (The Policy Plan, Heritage Resources, Objective 1, p. 3)

“Objective 1: Identify heritage resources representing all time periods and in all areas of the County.”

“Policy a: Identify heritage resources well in advance of potential damage or destruction.”

3. **Heritage Resources** (Comprehensive Policy Plan, Heritage Resources Objective 3, page 4)

“Objective 3: Protect significant historical resources from degradation or damage and destruction by public or private action.”

ANALYSIS AND RECOMMENDATIONS

Recreational Impact:

With the Countywide Comprehensive Policy Plan as a guide (Appendix 9, #6 of the Land Use section, as well as Objective 6, Policy a, b and c of the Parks and Recreation section), the Park Authority requests a fair share contribution of \$893 per new resident with any residential rezoning application to offset impacts to park and recreation service levels. This allows the Park Authority to build additional facilities needed as the population increases. To offset the additional impact caused by the proposed development, the applicant should contribute \$5,358 to the Park Authority for recreational facility development at one or more park sites located within the service area of the subject property.

Cultural Resources Impact:

The property was subject to an archival cultural resources review by staff in the Park Authority's Cultural Resource Management and Protection (CRMP) section. CRMP staff notes that the same structure that appears on a 2002 aerial photo of the property was also present on the County's 1937 aerial photo. Since the structure is more than 50 years old, the property has a moderate potential for significant archaeological and architectural resources. The Park Authority recommends the 2002/1937 structure, if still standing, be evaluated for its cultural and architectural significance. Therefore, staff requests that the property be subjected to a Phase I archaeological survey, using a scope of work provided by the CRMP. If any archaeological resources are found by the Phase I survey and determined to be potentially significant, then a Phase II assessment should be done. If any sites are determined to be significant then either they should be avoided or Phase III data recoveries should be performed in accordance with a scope provided by CRMP. Any Phase III scopes will provide for public interpretation of the results. Draft and final archaeological reports produced as a result of Phase I, II, and/or III studies should be submitted for approval to CRMP.

FCPA Reviewer: Andi Dorlester
DPZ Coordinator: St. Clair Williams

Regina M. Coyle
RZ 2009-PR-022, James Hollingsworth
11/10/09
Page 3

Copy: Cindy Walsh, Director, Resource Management Division
Liz Crowell, Manager, Cultural Resource Management & Protection Section
Chron Binder
File Copy



Department of Facilities and Transportation Services

FAIRFAX COUNTY
PUBLIC SCHOOLSOffice of Facilities Planning
10640 Page Avenue
Fairfax, Virginia 22030

November 2, 2009

TO: St. Clair Williams
Fairfax County Department of Planning & Zoning
Zoning Evaluation Division

FROM: Denise M. James, Director
Office of Facilities Planning Services

SUBJECT: RZ 2009-PR-022, 2818 Cedar Lane

ACREAGE: 1.45 acres

TAX MAP: 49-1 ((4)) 16A

PROPOSAL: Rezone property from the R-1 District to the R-4 District to permit 3 single family detached dwelling units.

This is in response to a memorandum dated October 15, 2009 requesting comments on RZ 2009-PR-022, which proposes to rezone property from the R-1 District to the R-4 District to permit three single family detached dwelling units. The property is currently developed with one dwelling unit that would be removed.

The proposed rezoning area is within the Fairhill Elementary School, Luther Jackson Middle School, and Falls Church High School boundaries. The chart below shows the existing school capacity, enrollment, and projected five year enrollment.

School	Capacity	Enrollment (9/30/09)	2010-2011 Projected Enrollment	Capacity Balance 2010-2011	2014-15 Projected Enrollment	Capacity Balance 2014-15
Fairhill ES	610	616	647	-37	709	-99
Jackson MS	1125	1070	1154	-29	1374	-249
Falls Church HS	1946	1393	1598	348	1724	222

Capacity and enrollment are based on the FCPS FY 2011-15 draft CIP; formal adoption is anticipated January 2010.

Currently there are no students residing at the property. The chart below shows the number of projected students by school level.

School level	Single family detached ratio	Proposed # of units	Student yield	Single family detached ratio	Current # of units	Student yield
Elementary	.266	3	1	.266	1	0
Middle	.084	3	0	.084	1	0
High	.181	3	1	.181	1	0
			2 total			
						0 total

Suggested Proffer Contribution

The rezoning application is anticipated to yield 2 new students. Based on the approved proffer formula guidelines, the students generated would justify a proffer contribution of \$18,756 (2 students x \$9,378) in order to address capital improvements for the receiving schools.

It is recommended that all proffer contributions be directed to the Falls Church HS pyramid and/or to Cluster II schools that encompass this area at the time of site plan approval or building permit approval in order for proffer contributions to be received and used towards capital improvements at the schools. Proffer contributions made at the time of occupancy may not provide adequate time for capital improvement construction/renovation that may be needed at the schools. It is also recommended that notification be given to FCPS when construction is anticipated to commence in order for FCPS to include the timely projection of students into its five year Capital Improvement Program.

In addition, because the timeframe for development is unknown and the suggested proffer contribution is updated on an annual basis to reflect current market conditions, in this down economy, the proffer contribution is likely to decrease to reflect current construction costs. As the economy improves, it is likely that costs will increase. For this reason, it is recommended that in addition to a monetary proffer contribution that an escalation clause be included as part of the developer's proffer in order to reflect the suggested proffer contribution amount at the time of development.

School Capacity

The charts above represent a snapshot in time for student enrollment and school capacity. Student enrollment projections are done in a five year timeframe, currently through school year 2014-15 and are updated annually. At this time, if development occurs within the next five years, Fairhill ES and Jackson MS are projected to have insufficient capacity and the rezoning application is anticipated to contribute to the projected capacity deficit. Beyond the five year projection horizon, enrollment projections are not available.

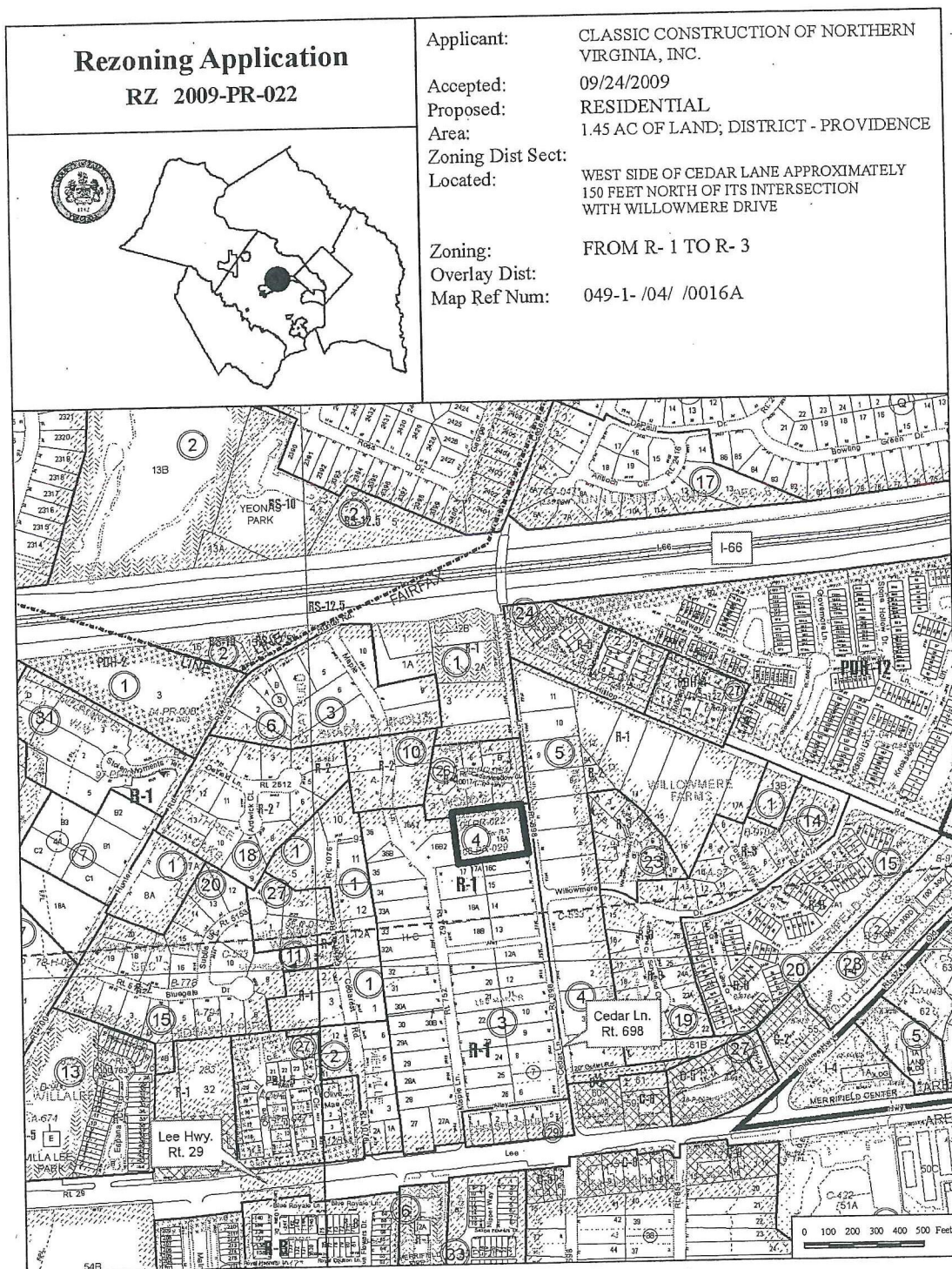
Future Development Impacts

There are several significant developments that share the same school boundaries as the proposed rezoning application that have not been constructed in the Merrifield area. These developments would be anticipated to contribute to the capacity deficit at the receiving schools.

Attachment: Locator Maps

cc: Illryong Moon, School Board Member, At-Large
James L. Raney, School Board Member, At-Large
Martina A. Hone, School Board Member, At-Large
Dean Tistadt, Chief Operating Officer, FCPS
Phyllis Pajardo, Cluster II, Assistant Superintendent
Patricia Phillips, Principal, Fairhill Elementary School
Louise H. Porter, Principal, Luther Jackson Middle School
Cathy Benner, Principal, Falls Church High School

Fairfax County Public Schools
Office of Facilities Planning Services





FAIRFAX COUNTY WATER AUTHORITY
8560 Arlington Boulevard, Fairfax, Virginia 22031
www.fairfaxwater.org

**PLANNING & ENGINEERING
DIVISION**

Jamie Bain Hedges, P.E.
Director
(703) 289-6325
Fax (703) 289-6382

December 14, 2009

Ms. Regina Coyle, Director
Zoning Evaluation Division
Fairfax County Department of Planning and Zoning
12055 Government Center Parkway, Suite 801
Fairfax, Virginia 22035-5505

Re: RZ 2009-PR-022

Dear Ms. Coyle:

Fairfax Water has reviewed the above noted Generalized Development Plan and has no comments.

If you have any questions regarding this information please contact Dave Guerra at (703) 289-6343.

Sincerely,

A handwritten signature in cursive script that reads "Traci K. Goldberg".

Traci K. Goldberg, P.E.
Manager, Planning Department

Enclosure

RESIDENTIAL DEVELOPMENT CRITERIA

Fairfax County expects new residential development to enhance the community by: fitting into the fabric of the neighborhood, respecting the environment, addressing transportation impacts, addressing impacts on other public facilities, being responsive to our historic heritage, contributing to the provision of affordable housing and, being responsive to the unique site specific considerations of the property. To that end, the following criteria are to be used in evaluating zoning requests for new residential development. The resolution of issues identified during the evaluation of a specific development proposal is critical if the proposal is to receive favorable consideration.

Where the Plan recommends a possible increase in density above the existing zoning of the property, achievement of the requested density will be based, in substantial part, on whether development related issues are satisfactorily addressed as determined by application of these development criteria. Most, if not all, of the criteria will be applicable in every application; however, due to the differing nature of specific development proposals and their impacts, the development criteria need not be equally weighted. If there are extraordinary circumstances, a single criterion or several criteria may be overriding in evaluating the merits of a particular proposal. Use of these criteria as an evaluation tool is not intended to be limiting in regard to review of the application with respect to other guidance found in the Plan or other aspects that the applicant incorporates into the development proposal. Applicants are encouraged to submit the best possible development proposals. In applying the Residential Development Criteria to specific projects and in determining whether a criterion has been satisfied, factors such as the following may be considered:

- the size of the project
- site specific issues that affect the applicant's ability to address in a meaningful way relevant development issues
- whether the proposal is advancing the guidance found in the area plans or other planning and policy goals (e.g. revitalization).

When there has been an identified need or problem, credit toward satisfying the criteria will be awarded based upon whether proposed commitments by the applicant will significantly advance problem resolution. In all cases, the responsibility for demonstrating satisfaction of the criteria rests with the applicant.

1. Site Design:

All rezoning applications for residential development should be characterized by high quality site design. Rezoning proposals for residential development, regardless of the proposed density, will be evaluated based upon the following principles, although not all of the principles may be applicable for all developments.

- a) *Consolidation:* Developments should provide parcel consolidation in conformance with any site specific text and applicable policy recommendations of the Comprehensive Plan. Should the Plan text not specifically address consolidation, the nature and extent of any proposed parcel consolidation should further the integration of the development with adjacent parcels. In any event, the proposed consolidation should not preclude nearby properties from developing as recommended by the Plan.
- b) *Layout:* The layout should:
 - provide logical, functional and appropriate relationships among the various parts (e. g. dwelling units, yards, streets, open space, stormwater management facilities, existing vegetation, noise mitigation measures, sidewalks and fences);
 - provide dwelling units that are oriented appropriately to adjacent streets and homes;

- include usable yard areas within the individual lots that accommodate the future construction of decks, sunrooms, porches, and/or accessory structures in the layout of the lots, and that provide space for landscaping to thrive and for maintenance activities;
 - provide logical and appropriate relationships among the proposed lots including the relationships of yards, the orientation of the dwelling units, and the use of pipestem lots;
 - provide convenient access to transit facilities;
 - Identify all existing utilities and make every effort to identify all proposed utilities and stormwater management outfall areas; encourage utility collocation where feasible.
- c) *Open Space:* Developments should provide usable, accessible, and well-integrated open space. This principle is applicable to all projects where open space is required by the Zoning Ordinance and should be considered, where appropriate, in other circumstances.
- d) *Landscaping:* Developments should provide appropriate landscaping: for example, in parking lots, in open space areas, along streets, in and around stormwater management facilities, and on individual lots.
- e) *Amenities:* Developments should provide amenities such as benches, gazebos, recreational amenities, play areas for children, walls and fences, special paving treatments, street furniture, and lighting.

2. Neighborhood Context

All rezoning applications for residential development, regardless of the proposed density, should be designed to fit into the community within which the development is to be located. Developments should fit into the fabric of their adjacent neighborhoods, as evidenced by an evaluation of:

- transitions to abutting and adjacent uses;
- lot sizes, particularly along the periphery;
- bulk/mass of the proposed dwelling units;
- setbacks (front, side and rear);
- orientation of the proposed dwelling units to adjacent streets and homes;
- architectural elevations and materials;
- pedestrian, bicycle and vehicular connections to off-site trails, roadways, transit facilities and land uses;
- existing topography and vegetative cover and proposed changes to them as a result of clearing and grading.

It is not expected that developments will be identical to their neighbors, but that the development fit into the fabric of the community. In evaluating this criterion, the individual circumstances of the property will be considered: such as, the nature of existing and planned development surrounding and/or adjacent to the property; whether the property provides a transition between different uses or densities; whether access to an infill development is through an existing neighborhood; or, whether the property is within an area that is planned for redevelopment.

3. Environment:

All rezoning applications for residential development should respect the environment. Rezoning proposals for residential development, regardless of the proposed density, should be consistent with the policies and objectives of the environmental element of the Policy Plan, and will also be evaluated on the following principles, where applicable.

- a) *Preservation:* Developments should conserve natural environmental resources by protecting, enhancing, and/or restoring the habitat value and pollution reduction potential of floodplains, stream valleys, EQCs, RPAs, woodlands, wetlands and other environmentally sensitive areas.
- b) *Slopes and Soils:* The design of developments should take existing topographic conditions and soil characteristics into consideration.
- c) *Water Quality:* Developments should minimize off-site impacts on water quality by commitments to state of the art best management practices for stormwater management and low-impact site design techniques.
- d) *Drainage:* The volume and velocity of stormwater runoff from new development should be managed in order to avoid impacts on downstream properties. Where drainage is a particular concern, the applicant should demonstrate that off-site drainage impacts will be mitigated and that stormwater management facilities are designed and sized appropriately. Adequate drainage outfall should be verified, and the location of drainage outfall (onsite or offsite) should be shown on development plans.
- e) *Noise:* Developments should protect future and current residents and others from the adverse impacts of transportation generated noise.
- f) *Lighting:* Developments should commit to exterior lighting fixtures that minimize neighborhood glare and impacts to the night sky.
- g) *Energy:* Developments should use site design techniques such as solar orientation and landscaping to achieve energy savings, and should be designed to encourage and facilitate walking and bicycling.

4. Tree Preservation and Tree Cover Requirements:

All rezoning applications for residential development, regardless of the proposed density, should be designed to take advantage of the existing quality tree cover. If quality tree cover exists on site as determined by the County, it is highly desirable that developments meet most or all of their tree cover requirement by preserving and, where feasible and appropriate, transplanting existing trees. Tree cover in excess of ordinance requirements is highly desirable. Proposed utilities, including stormwater management and outfall facilities and sanitary sewer lines, should be located to avoid conflicts with tree preservation and planting areas.

5. Transportation:

All rezoning applications for residential development should implement measures to address planned transportation improvements. Applicants should offset their impacts to the transportation network. Accepted techniques should be utilized for analysis of the development's impact on the network. Residential development considered under these criteria will range widely in density and, therefore, will result in differing impacts to the transportation network. Some criteria will have universal applicability while others will apply only under specific circumstances. Regardless of the proposed density, applications will be evaluated based upon the following principles, although not all of the principles may be applicable.

- a) *Transportation Improvements:* Residential development should provide safe and adequate access to the road network, maintain the ability of local streets to safely accommodate traffic, and offset the impact of additional traffic through commitments to the following:

- Capacity enhancements to nearby arterial and collector streets;
 - Street design features that improve safety and mobility for non-motorized forms of transportation;
 - Signals and other traffic control measures;
 - Development phasing to coincide with identified transportation improvements;
 - Right-of-way dedication;
 - Construction of other improvements beyond ordinance requirements;
 - Monetary contributions for improvements in the vicinity of the development.
- b) *Transit/Transportation Management:* Mass transit usage and other transportation measures to reduce vehicular trips should be encouraged by:
- Provision of bus shelters;
 - Implementation and/or participation in a shuttle bus service;
 - Participation in programs designed to reduce vehicular trips;
 - Incorporation of transit facilities within the development and integration of transit with adjacent areas;
 - Provision of trails and facilities that increase safety and mobility for non-motorized travel.
- c) *Interconnection of the Street Network:* Vehicular connections between neighborhoods should be provided, as follows:
- Local streets within the development should be connected with adjacent local streets to improve neighborhood circulation;
 - When appropriate, existing stub streets should be connected to adjoining parcels. If street connections are dedicated but not constructed with development, they should be identified with signage that indicates the street is to be extended;
 - Streets should be designed and constructed to accommodate safe and convenient usage by buses and non-motorized forms of transportation;
 - Traffic calming measures should be implemented where needed to discourage cut-through traffic, increase safety and reduce vehicular speed;
 - The number and length of long, single-ended roadways should be minimized;
 - Sufficient access for public safety vehicles should be ensured.
- d) *Streets:* Public streets are preferred. If private streets are proposed in single family detached developments, the applicant shall demonstrate the benefits for such streets. Applicants should make appropriate design and construction commitments for all private streets so as to minimize maintenance costs which may accrue to future property owners. Furthermore, convenience and safety issues such as parking on private streets should be considered during the review process.
- e) *Non-motorized Facilities:* Non-motorized facilities, such as those listed below, should be provided:
- Connections to transit facilities;
 - Connections between adjoining neighborhoods;
 - Connections to existing non-motorized facilities;
 - Connections to off-site retail/commercial uses, public/community facilities, and natural and recreational areas;
 - An internal non-motorized facility network with pedestrian and natural amenities, particularly those included in the Comprehensive Plan;
 - Offsite non-motorized facilities, particularly those included in the Comprehensive Plan;
 - Driveways to residences should be of adequate length to accommodate passenger vehicles without blocking walkways;

- Construction of non-motorized facilities on both sides of the street is preferred. If construction on a single side of the street is proposed, the applicant shall demonstrate the public benefit of a limited facility.
- f) *Alternative Street Designs:* Under specific design conditions for individual sites or where existing features such as trees, topography, etc. are important elements, modifications to the public street standards may be considered.

6. Public Facilities:

Residential development impacts public facility systems (i.e., schools, parks, libraries, police, fire and rescue, stormwater management and other publicly owned community facilities). These impacts will be identified and evaluated during the development review process. For schools, a methodology approved by the Board of Supervisors, after input and recommendation by the School Board, will be used as a guideline for determining the impact of additional students generated by the new development.

Given the variety of public facility needs throughout the County, on a case-by-case basis, public facility needs will be evaluated so that local concerns may be addressed.

All rezoning applications for residential development are expected to offset their public facility impact and to first address public facility needs in the vicinity of the proposed development. Impact offset may be accomplished through the dedication of land suitable for the construction of an identified public facility need, the construction of public facilities, the contribution of specified in-kind goods, services or cash earmarked for those uses, and/or monetary contributions to be used toward funding capital improvement projects. Selection of the appropriate offset mechanism should maximize the public benefit of the contribution.

Furthermore, phasing of development may be required to ensure mitigation of impacts.

7. Affordable Housing:

Ensuring an adequate supply of housing for low and moderate income families, those with special accessibility requirements, and those with other special needs is a goal of the County. Part 8 of Article 2 of the Zoning Ordinance requires the provision of Affordable Dwelling Units (ADUs) in certain circumstances. Criterion #7 is applicable to all rezoning applications and/or portions thereof that are not required to provide any Affordable Dwelling Units, regardless of the planned density range for the site.

- a) *Dedication of Units or Land:* If the applicant elects to fulfill this criterion by providing affordable units that are not otherwise required by the ADU Ordinance: a maximum density of 20% above the upper limit of the Plan range could be achieved if 12.5% of the total number of single family detached and attached units are provided pursuant to the Affordable Dwelling Unit Program; and, a maximum density of 10% or 20% above the upper limit of the Plan range could be achieved if 6.25% or 12.5%, respectively of the total number of multifamily units are provided to the Affordable Dwelling Unit Program. As an alternative, land, adequate and ready to be developed for an equal number of units may be provided to the Fairfax County Redevelopment and Housing Authority or to such other entity as may be approved by the Board.
- b) *Housing Trust Fund Contributions:* Satisfaction of this criterion may also be achieved by a contribution to the Housing Trust Fund or, as may be approved by the Board, a monetary and/or in-kind contribution to another entity whose mission is to provide affordable housing in Fairfax County, equal to 0.5% of the value of all of the units approved on the property except those that result in the provision of ADUs. This contribution shall be payable prior to the issuance of the first

building permit. For for-sale projects, the percentage set forth above is based upon the aggregate sales price of all of the units subject to the contribution, as if all of those units were sold at the time of the issuance of the first building permit, and is estimated through comparable sales of similar type units. For rental projects, the amount of the contribution is based upon the total development cost of the portion of the project subject to the contribution for all elements necessary to bring the project to market, including land, financing, soft costs and construction. The sales price or development cost will be determined by the Department of Housing and Community Development, in consultation with the Applicant and the Department of Public Works and Environmental Services. If this criterion is fulfilled by a contribution as set forth in this paragraph, the density bonus permitted in a) above does not apply.

8. Heritage Resources:

Heritage resources are those sites or structures, including their landscape settings, that exemplify the cultural, architectural, economic, social, political, or historic heritage of the County or its communities. Such sites or structures have been 1) listed on, or determined eligible for listing on, the National Register of Historic Places or the Virginia Landmarks Register; 2) determined to be a contributing structure within a district so listed or eligible for listing; 3) located within and considered as a contributing structure within a Fairfax County Historic Overlay District; or 4) listed on, or having a reasonable potential as determined by the County, for meeting the criteria for listing on, the Fairfax County Inventories of Historic or Archaeological Sites.

In reviewing rezoning applications for properties on which known or potential heritage resources are located, some or all of the following shall apply:

- a) Protect heritage resources from deterioration or destruction until they can be documented, evaluated, and/or preserved;
- b) Conduct archaeological, architectural, and/or historical research to determine the presence, extent, and significance of heritage resources;
- c) Submit proposals for archaeological work to the County for review and approval and, unless otherwise agreed, conduct such work in accordance with state standards;
- d) Preserve and rehabilitate heritage resources for continued or adaptive use where feasible;
- e) Submit proposals to change the exterior appearance of, relocate, or demolish historic structures to the Fairfax County Architectural Review Board for review and approval;
- f) Document heritage resources to be demolished or relocated;
- g) Design new structures and site improvements, including clearing and grading, to enhance rather than harm heritage resources;
- h) Establish easements that will assure continued preservation of heritage resources with an appropriate entity such as the County's Open Space and Historic Preservation Easement Program; and
- i) Provide a Fairfax County Historical Marker or Virginia Historical Highway Marker on or near the site of a heritage resource, if recommended and approved by the Fairfax County History Commission.

ROLE OF DENSITY RANGES IN AREA PLANS

Density ranges for property planned for residential development, expressed generally in terms of dwelling units per acre, are recommended in the Area Plans and are shown on the Comprehensive Plan Map. Where the Plan text and map differ, the text governs. In defining the density range:

- the “base level” of the range is defined as the lowest density recommended in the Plan range, i.e., 5 dwelling units per acre in the 5-8 dwelling unit per acre range;
- the “high end” of the range is defined as the base level plus 60% of the density range in a particular Plan category, which in the residential density range of 5-8 dwelling units per acre would be considered as 6.8 dwelling units per acre and above; and,
- the upper limit is defined as the maximum density called for in any Plan range, which, in the 5-8 dwelling unit per acre range would be 8 dwelling units per acre.
- In instances where a range is not specified in the Plan, for example where the Plan calls for residential density up to 30 dwelling units per acre, the density cited in the Plan shall be construed to equate to the upper limit of the Plan range, and the base level shall be the upper limit of the next lower Plan range, in this instance, 20 dwelling units per acre.

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PART 4 3-400 R-4 RESIDENTIAL DISTRICT, FOUR DWELLING UNITS/ACRE**3-401 Purpose and Intent**

The R-4 District is established to provide for single family detached dwellings at densities set forth in Sect. 408 below; to provide for affordable dwelling unit developments; to allow other selected uses which are compatible with the low density residential character of the district; and otherwise to implement the stated purpose and intent of this Ordinance.

3-402 Permitted Uses

1. Accessory uses and home occupations as permitted by Article 10.
2. Affordable dwelling unit developments.
3. Dwellings, single family detached.
4. Public uses.

3-403 Special Permit Uses

For specific Group uses, regulations and standards, refer to Article 8.

1. Group 2 - Interment Uses.
2. Group 3 - Institutional Uses, limited to:
 - A. Churches, chapels, temples, synagogues and other such places of worship
 - B. Churches, chapels, temples, synagogues and other such places of worship with a child care center, nursery school or private school of general or special education
 - C. Convents, monasteries, seminaries and nunneries
 - D. Group housekeeping units
 - E. Home child care facilities
3. Group 4 - Community Uses.
4. Group 5 - Commercial Recreation Uses, limited to:
 - A. Commercial swimming pools, tennis courts and similar courts
5. Group 7 - Older Structures, limited to:
 - A. Antique shops
 - B. Art and craft galleries

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- C. Rooming houses
- D. Summer theatres
- 6. Group 8 - Temporary Uses, limited to:
 - A. Carnival, circus, festival, fair, horse show, dog show, steeplechase, music festival, turkey shoot, sale of Christmas trees or other seasonal commodities and other similar activities
 - B. Construction material yards accessory to a construction project
 - C. Contractors' offices and equipment sheds to include trailers accessory and adjacent to an active construction project
 - D. Subdivision and apartment sales and rental offices
 - E. Temporary dwellings or mobile homes
 - F. Temporary farmers' markets
 - G. Temporary mobile and land based telecommunications testing facility
 - H. Temporary portable storage containers
- 7. Group 9 - Uses Requiring Special Regulation, limited to:
 - A. Home professional offices
 - B. Accessory dwelling units

3-404

Special Exception Uses

For specific Category uses, regulations and standards, refer to Article 9.

- 1. Category 1 - Light Public Utility Uses.
- 2. Category 3 - Quasi-Public Uses, limited to:
 - A. Alternate uses of public facilities
 - B. Child care centers and nursery schools
 - C. Churches, chapels, temples, synagogues and other such places of worship with a child care center, nursery school or private school of general or special education
 - D. Colleges, universities

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- E. Conference centers and retreat houses, operated by a religious or nonprofit organization
 - F. Congregate living facilities
 - G. Cultural centers, museums and similar facilities
 - H. Dormitories, fraternity/sorority houses, rooming/boarding houses, or other residence halls
 - I. Independent living facilities
 - J. Medical care facilities
 - K. Private clubs and public benefit associations
 - L. Private schools of general education
 - M. Private schools of special education
 - N. Quasi-public parks, playgrounds, athletic fields and related facilities
3. Category 4 - Transportation Facilities, limited to:
- A. Electrically-powered regional rail transit facilities
 - B. Regional non-rail transit facilities
4. Category 5 - Commercial and Industrial Uses of Special Impact, limited to:
- A. Commercial off-street parking in Metro Station areas as a temporary use
 - B. Convenience centers
 - C. Funeral chapels
 - D. Golf courses, country clubs
 - E. Marinas, docks and boating facilities, commercial
 - F. Offices
 - G. Plant nurseries
5. Category 6 – Miscellaneous Provisions Requiring Board of Supervisors' Approval:

Refer to Article 9, Special Exceptions, Part 6, Miscellaneous Provisions Requiring Board of Supervisors' Approval, for provisions which may qualify or supplement these district regulations.

RESIDENTIAL DISTRICT REGULATIONS

3-405

Use Limitations

1. No sale of goods or products shall be permitted, except as accessory and incidental to a permitted, special permit or special exception use.
2. All uses shall comply with the performance standards set forth in Article 14.
3. Cluster subdivisions may be permitted in accordance with the provisions of Sect. 9-615 when the cluster subdivision has a minimum district size of two (2) acres or greater but less than three and one-half (3.5) acres, and with the provisions of Sect. 2-421 when the cluster subdivision has a minimum district size of three and one-half (3.5) acres or greater.

3-406

Lot Size Requirements

1. Minimum district size for cluster subdivisions:
 - A. Cluster subdivisions containing a minimum district size of two (2) acres or greater but less than three and one-half (3.5) acres shall be subject to special exception approval.
 - B. Cluster subdivisions containing a minimum district size of three and one-half acres (3.5) acres or greater shall be subject to approval by the Director.
2. Average lot area
 - A. Conventional subdivision lot: 8,800 sq. ft.
 - B. Cluster subdivision lot: No Requirement
3. Minimum lot area
 - A. Conventional subdivision lot: 8,400 sq. ft.
 - B. Cluster subdivision lot approved by the Director: 6,000 sq. ft., except that if any portion of a cluster subdivision lot is located within 25 feet of a peripheral boundary of the cluster subdivision and any portion of any lot located outside of the cluster subdivision that is contiguous to that cluster subdivision's peripheral boundary is zoned to a district that permits a maximum density equal to or less than 4 dwelling units per acre and contains a single family detached dwelling or is vacant, then such cluster subdivision lot shall contain a minimum lot area of 8,000 square feet. Notwithstanding the above, when the contiguous development is zoned to the PDH-4 District or to an R-4 District and is developed with and/or approved for a cluster subdivision, all lots within the proposed cluster subdivision shall contain a minimum lot area of 6,000 square feet.
 - C. Cluster subdivision lot approved by special exception: 6,000 sq. ft.
4. Minimum lot width
 - A. Conventional subdivision lot:

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(1) Interior lot - 70 feet

(2) Corner lot - 95 feet

B. Except as qualified below, cluster subdivision lot approved by the Director:

(1) Interior lot - No Requirement

(2) Corner lot - 70 feet

If any portion of a cluster subdivision lot is located within 25 feet of a peripheral boundary of the cluster subdivision and any portion of any lot located outside of the cluster subdivision that is contiguous to that peripheral cluster subdivision's boundary is zoned to a district that permits a maximum density equal to or less than 4 dwelling units per acre and contains a single family detached dwelling or is vacant, then such cluster subdivision lot shall contain a minimum lot width of 70 feet for interior lots and 95 feet for corner lots. Notwithstanding the above, when the contiguous development is zoned to the PDH-4 District or to an R-4 District and is developed with and/or approved for a cluster subdivision, all lots within the proposed cluster subdivision shall have no minimum required lot width for interior lots and shall contain a minimum lot width of 70 feet for corner lots.

C. Cluster subdivision lot approved by special exception:

(1) Interior lot - No Requirement

(2) Corner lot - 70 feet

3-407

Bulk Regulations

1. Maximum building height

A. Single family dwellings: 35 feet

B. All other structures: 60 feet

2. Minimum yard requirements

A. Single family dwellings

(1) Conventional subdivision lot

(a) Front yard: 30 feet

(b) Side yard: 10 feet

(c) Rear yard: 25 feet

(2) Cluster subdivision lot

RESIDENTIAL DISTRICT REGULATIONS

- (a) Front yard: 20 feet
- (b) Side yard: 8 feet
- (c) Rear yard: 25 feet

B. All other structures

- (1) Front yard: Controlled by a 35° angle of bulk plane, but not less than 25 feet
- (2) Side yard: Controlled by a 30° angle of bulk plane, but not less than 10 feet
- (3) Rear yard: Controlled by a 30° angle of bulk plane, but not less than 25 feet

3. Maximum floor area ratio:

- A. 0.30 for uses other than residential or public
- B. 0.35 for public uses

3-408

Maximum Density

- 1. Conventional subdivisions: Four (4) dwelling units per acre.
- 2. Cluster subdivisions:
 - A. Four (4) dwelling units per acre for cluster subdivisions approved by the Director in accordance with Sect. 2-421, or that are the result of proffered rezoning from a district that allows a permitted maximum density of less than four (4) dwelling units per acre.
 - B. Four dwelling units per acre plus one (1) bonus dwelling unit for cluster subdivisions containing a minimum district size of two (2) acres or greater but less than three and one-half (3.5) acres and approved by special exception.

3-409

Open Space

In subdivisions approved for cluster development, 25% of the gross area shall be open space.

3-410

Affordable Dwelling Unit Developments

Affordable dwelling unit developments may consist of single family detached dwelling units, either in a conventional subdivision or cluster subdivision. Cluster subdivisions shall be subject to the approval of the Director in accordance with Sect. 2-421. In addition, single family attached dwelling units are permitted, provided that no more than forty-five (45) percent of the

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total number of dwelling units allowed within the development shall be single family attached dwelling units. The following regulations shall apply to dwelling units in affordable dwelling unit developments:

1. Minimum lot area

- A. Single family detached conventional subdivision lot: 6,720 sq. ft.
- B. Single family detached cluster subdivision lot: 4,800 sq. ft., except that if any portion of a cluster subdivision lot is located within 25 feet of a peripheral boundary of the cluster subdivision and any portion of any lot located outside of the cluster subdivision that is contiguous to that cluster subdivision's peripheral boundary is zoned to a district that permits a maximum density equal to or less than 4 dwelling units per acre and contains a single family detached dwelling or is vacant, then such cluster subdivision lot shall contain a minimum lot area of 6,720 square feet. Notwithstanding the above, when the contiguous development is zoned to the PDH-4 District or to an R-4 District and is developed with and/or approved for a cluster subdivision, all lots within the proposed cluster subdivision shall contain a minimum lot area of 4,800 square feet.
- C. Single family attached: No Requirement

2. Minimum lot width

- A. Single family detached conventional subdivision lot:
 - (1) Interior lot - 56 feet
 - (2) Corner lot - 76 feet
- B. Except as qualified below, single family detached cluster subdivision lot:
 - (1) Interior lot - No Requirement
 - (2) Corner lot - 56 feet

If any portion of a cluster subdivision lot is located within 25 feet of a peripheral boundary of the cluster subdivision, and any portion of any lot located outside of the cluster subdivision that is contiguous to that peripheral cluster subdivision's boundary is zoned to a district that permits a maximum density equal to or less than 4 dwelling units per acre and contains a single family detached dwelling or is vacant, then such cluster subdivision lot shall contain a minimum lot width of 56 feet for interior lots and 76 feet for corner lots. Notwithstanding the above, when the contiguous development is zoned to the PDH-4 District or to a R-4 District and is developed with and/or approved for a cluster subdivision, all lots within the proposed cluster subdivision shall have no minimum required lot width for interior lots and shall contain a minimum lot width of 56 feet for corner lots.

- C. Single family attached dwellings: 14 feet

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3. Maximum building height
 - A. Single family detached dwellings: 35 feet
 - B. Single family attached dwellings: 40 feet
4. Minimum yard requirements
 - A. Single family detached conventional subdivision lot
 - (1) Front yard: 24 feet
 - (2) Side yard: 8 feet
 - (3) Rear yard: 25 feet
 - B. Single family detached cluster subdivision lot
 - (1) Front yard: 16 feet
 - (2) Side yard: 8 feet
 - (3) Rear yard: 25 feet
 - C. Single family attached dwellings
 - (1) Front yard: Controlled by 15° angle of bulk plane, but not less than 5 feet
 - (2) Side yard: Controlled by 15° angle of bulk plane, but not less than 10 feet
 - (3) Rear yard: Controlled by 30° angle of bulk plane, but not less than 20 feet
5. Refer to Par. 4 of Sect. 2-307 for provisions that qualify the minimum yard requirements for individual units in single family attached dwellings.
6. All other structures shall be subject to the lot size requirements and bulk regulations of Sections 406 and 407 above.
7. Single family attached dwelling units shall be located so to minimize their impact on single family detached dwelling unit developments located adjacent to the ADU development.
8. The maximum density shall be four and eight-tenths (4.8) dwelling units per acre.
9. Open space
 - A. In conventional subdivisions containing both single family detached and attached dwelling units, open space in an amount equivalent to 200 square feet per single

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family attached dwelling unit shall be provided and such open space shall be located adjacent to the single family attached dwelling units.

- B. In cluster subdivisions with single family detached dwelling units, 22% of the gross area shall be open space. When such developments also contain single family attached dwelling units, within such 22% open space, 200 square feet of open space per single family attached dwelling unit shall be provided adjacent to the single family attached dwelling units.

3-411

Additional Regulations

1. Refer to Article 2, General Regulations, for provisions which may qualify or supplement the regulations presented above, including the shape factor limitations contained in Sect. 2-401. The shape factor limitations may be modified by the Board in accordance with the provisions of Sect. 9-626.
2. Refer to Article 11 for off-street parking, loading and private street requirements.
3. Refer to Article 12 for regulations on signs.
4. Refer to Article 13 for landscaping and screening requirements.
5. Refer to Article 17 for uses and developments which are subject to site plan provisions.

GLOSSARY

This Glossary is provided to assist the public in understanding the staff evaluation and analysis of development proposals. It should not be construed as representing legal definitions. Refer to the Fairfax County Zoning Ordinance, Comprehensive Plan or Public Facilities Manual for additional information.

ABANDONMENT: Refers to road or street abandonment, an action taken by the Board of Supervisors, usually through the public hearing process, to abolish the public's right-of-passage over a road or road right-of way. Upon abandonment, the right-of-way automatically reverts to the underlying fee owners. If the fee to the owner is unknown, Virginia law presumes that fee to the roadbed rests with the adjacent property owners if there is no evidence to the contrary.

ACCESSORY DWELLING UNIT (OR APARTMENT): A secondary dwelling unit established in conjunction with and clearly subordinate to a single family detached dwelling unit. An accessory dwelling unit may be allowed if a special permit is granted by the Board of Zoning Appeals (BZA). Refer to Sect. 8-918 of the Zoning Ordinance.

AFFORDABLE DWELLING UNIT (ADU) DEVELOPMENT: Residential development to assist in the provision of affordable housing for persons of low and moderate income in accordance with the affordable dwelling unit program and in accordance with Zoning Ordinance regulations. Residential development which provides affordable dwelling units may result in a density bonus (see below) permitting the construction of additional housing units. See Part 8 of Article 2 of the Zoning Ordinance.

AGRICULTURAL AND FORESTAL DISTRICTS: A land use classification created under Chapter 114 or 115 of the Fairfax County Code for the purpose of qualifying landowners who wish to retain their property for agricultural or forestal use for use/value taxation pursuant to Chapter 58 of the Fairfax County Code.

BARRIER: A wall, fence, earthen berm, or plant materials which may be used to provide a physical separation between land uses. Refer to Article 13 of the Zoning Ordinance for specific barrier requirements.

BEST MANAGEMENT PRACTICES (BMPs): Stormwater management techniques or land use practices that are determined to be the most effective, practicable means of preventing and/or reducing the amount of pollution generated by nonpoint sources in order to improve water quality.

BUFFER: Graduated mix of land uses, building heights or intensities designed to mitigate potential conflicts between different types or intensities of land uses; may also provide for a transition between uses. A landscaped buffer may be an area of open, undeveloped land and may include a combination of fences, walls, berms, open space and/or landscape plantings. A buffer is not necessarily coincident with transitional screening.

CHESAPEAKE BAY PRESERVATION ORDINANCE: Regulations which the State has mandated must be adopted to protect the Chesapeake Bay and its tributaries. These regulations must be incorporated into the comprehensive plans, zoning ordinances and subdivision ordinances of the affected localities. Refer to Chesapeake Bay Preservation Act, Va. Code Section 10.1-2100 et seq and VR 173-02-01, Chesapeake Bay Preservation Area Designation and Management Regulations.

CLUSTER DEVELOPMENT: Residential development in which the lots are clustered on a portion of a site so that significant environmental/historical/cultural resources may be preserved or recreational amenities provided. While smaller lot sizes are permitted in a cluster subdivision to preserve open space, the overall density cannot exceed that permitted by the applicable zoning district. See Sect. 2-421 and Sect. 9-615 of the Zoning Ordinance.

COUNTY 2232 REVIEW PROCESS: A public hearing process pursuant to Sect. 15.2-2232 (Formerly Sect. 15.1-456) of the Virginia Code which is used to determine if a proposed public facility not shown on the adopted Comprehensive Plan is in substantial accord with the plan. Specifically, this process is used to determine if the general or approximate location, character and extent of a proposed facility is in substantial accord with the Plan.

dBA: The momentary magnitude of sound weighted to approximate the sensitivity of the human ear to certain frequencies; the dBA value describes a sound at a given instant, a maximum sound level or a steady state value. See also Ldn.

DENSITY: Number of dwelling units (du) divided by the gross acreage (ac) of a site being developed in residential use; or, the number of dwelling units per acre (du/ac) except in the PRC District when density refers to the number of persons per acre.

DENSITY BONUS: An increase in the density otherwise allowed in a given zoning district which may be granted under specific provisions of the Zoning Ordinance when a developer provides excess open space, recreation facilities, or affordable dwelling units (ADUs), etc.

DEVELOPMENT CONDITIONS: Terms or conditions imposed on a development by the Board of Supervisors (BOS) or the Board of Zoning Appeals (BZA) in connection with approval of a special exception, special permit or variance application or rezoning application in a "P" district. Conditions may be imposed to mitigate adverse impacts associated with a development as well as secure compliance with the Zoning Ordinance and/or conformance with the Comprehensive Plan. For example, development conditions may regulate hours of operation, number of employees, height of buildings, and intensity of development.

DEVELOPMENT PLAN: A graphic representation which depicts the nature and character of the development proposed for a specific land area; information such as topography, location and size of proposed structures, location of streets, trails, utilities, and storm drainage are generally included on a development plan. A development plan is a submission requirement for rezoning to the PRC District. A **GENERALIZED DEVELOPMENT PLAN (GDP)** is a submission requirement for a rezoning application for all conventional zoning districts other than a P District. A development plan submitted in connection with a special exception (SE) or special permit (SP) is generally referred to as an SE or SP plat. A **CONCEPTUAL DEVELOPMENT PLAN (CDP)** is a submission requirement when filing a rezoning application for a P District other than the PRC District; a CDP characterizes in a general way the planned development of the site. A **FINAL DEVELOPMENT PLAN (FDP)** is a submission requirement following the approval of a conceptual development plan and rezoning application for a P District other than the PRC District; an FDP further details the planned development of the site. See Article 16 of the Zoning Ordinance.

EASEMENT: A right to or interest in property owned by another for a specific and limited purpose. Examples: access easement, utility easement, construction easement, etc. Easements may be for public or private purposes.

ENVIRONMENTAL QUALITY CORRIDORS (EQCs): An open space system designed to link and preserve natural resource areas, provide passive recreation and protect wildlife habitat. The system includes stream valleys, steep slopes and wetlands. For a complete definition of EQCs, refer to the Environmental section of the Policy Plan for Fairfax County contained in Vol. 1 of the Comprehensive Plan.

ERODIBLE SOILS: Soils that wash away easily, especially under conditions where stormwater runoff is inadequately controlled. Silt and sediment are washed into nearby streams, thereby degrading water quality.

FLOODPLAIN: Those land areas in and adjacent to streams and watercourses subject to periodic flooding; usually associated with environmental quality corridors. The 100 year floodplain drains 70 acres or more of land and has a one percent chance of flood occurrence in any given year.

FLOOR AREA RATIO (FAR): An expression of the amount of development intensity (typically, non-residential uses) on a specific parcel of land. FAR is determined by dividing the total square footage of gross floor area of buildings on a site by the total square footage of the site itself.

FUNCTIONAL CLASSIFICATION: A system for classifying roads in terms of the character of service that individual facilities are providing or are intended to provide, ranging from travel mobility to land access. Roadway system functional classification elements include Freeways or Expressways which are limited access highways, Other Principal (or Major) Arterials, Minor Arterials, Collector Streets, and Local Streets. Principal arterials are designed to accommodate travel; access to adjacent properties is discouraged. Minor arterials are designed to serve both through traffic and local trips. Collector roads and streets link local streets and properties with the arterial network. Local streets provide access to adjacent properties.

GEOTECHNICAL REVIEW: An engineering study of the geology and soils of a site which is submitted to determine the suitability of a site for development and recommends construction techniques designed to overcome development on problem soils, e.g., marine clay soils.

HYDROCARBON RUNOFF: Petroleum products, such as motor oil, gasoline or transmission fluid deposited by motor vehicles which are carried into the local storm sewer system with the stormwater runoff, and ultimately, into receiving streams; a major source of non-point source pollution. An oil-grit separator is a common hydrocarbon runoff reduction method.

IMPERVIOUS SURFACE: Any land area covered by buildings or paved with a hard surface such that water cannot seep through the surface into the ground.

INFILL: Development on vacant or underutilized sites within an area which is already mostly developed in an established development pattern or neighborhood.

INTENSITY: The magnitude of development usually measured in such terms as density, floor area ratio, building height, percentage of impervious surface, traffic generation, etc. Intensity is also based on a comparison of the development proposal against environmental constraints or other conditions which determine the carrying capacity of a specific land area to accommodate development without adverse impacts.

Ldn: Day night average sound level. It is the twenty-four hour average sound level expressed in A-weighted decibels; the measurement assigns a "penalty" to night time noise to account for night time sensitivity. Ldn represents the total noise environment which varies over time and correlates with the effects of noise on the public health, safety and welfare.

LEVEL OF SERVICE (LOS): An estimate of the effectiveness of a roadway to carry traffic, usually under anticipated peak traffic conditions. Level of Service efficiency is generally characterized by the letters A through F, with LOS-A describing free flow traffic conditions and LOS-F describing jammed or grid-lock conditions.

MARINE CLAY SOILS: Soils that occur in widespread areas of the County generally east of Interstate 95. Because of the abundance of shrink-swell clays in these soils, they tend to be highly unstable. Many areas of slope failure are evident on natural slopes. Construction on these soils may initiate or accelerate slope movement or slope failure. The shrink-swell soils can cause movement in structures, even in areas of flat topography, from dry to wet seasons resulting in cracked foundations, etc. Also known as slippage soils.

OPEN SPACE: That portion of a site which generally is not covered by buildings, streets, or parking areas. Open space is intended to provide light and air; open space may function as a buffer between land uses or for scenic, environmental, or recreational purposes.

OPEN SPACE EASEMENT: An easement usually granted to the Board of Supervisors which preserves a tract of land in open space for some public benefit in perpetuity or for a specified period of time. Open space easements may be accepted by the Board of Supervisors, upon request of the land owner, after evaluation under criteria established by the Board. See Open Space Land Act, Code of Virginia, Sections 10.1-1700, et seq.

P DISTRICT: A "P" district refers to land that is planned and/or developed as a Planned Development Housing (PDH) District, a Planned Development Commercial (PDC) District or a Planned Residential Community (PRC) District. The PDH, PDC and PRC Zoning Districts are established to encourage innovative and creative design for land development; to provide ample and efficient use of open space; to promote a balance in the mix of land uses, housing types, and intensity of development; and to allow maximum flexibility in order to achieve excellence in physical, social and economic planning and development of a site. Refer to Articles 6 and 16 of the Zoning Ordinance.

PROFFER: A written condition, which, when offered voluntarily by a property owner and accepted by the Board of Supervisors in a rezoning action, becomes a legally binding condition which is in addition to the zoning district regulations applicable to a specific property. Proffers are submitted and signed by an owner prior to the Board of Supervisors public hearing on a rezoning application and run with the land. Once accepted by the Board, proffers may be modified only by a proffered condition amendment (PCA) application or other zoning action of the Board and the hearing process required for a rezoning application applies. See Sect. 15.2-2303 (formerly 15.1-491) of the Code of Virginia.

PUBLIC FACILITIES MANUAL (PFM): A technical text approved by the Board of Supervisors containing guidelines and standards which govern the design and construction of site improvements incorporating applicable Federal, State and County Codes, specific standards of the Virginia Department of Transportation and the County's Department of Public Works and Environmental Services.

RESOURCE MANAGEMENT AREA (RMA): That component of the Chesapeake Bay Preservation Area comprised of lands that, if improperly used or developed, have a potential for causing significant water quality degradation or for diminishing the functional value of the Resource Protection Area. See Fairfax County Code, Ch. 118, Chesapeake Bay Preservation Ordinance.

RESOURCE PROTECTION AREA (RPA): That component of the Chesapeake Bay Preservation Area comprised of lands at or near the shoreline or water's edge that have an intrinsic water quality value due to the ecological and biological processes they perform or are sensitive to impacts which may result in significant degradation of the quality of state waters. In their natural condition, these lands provide for the removal, reduction or assimilation of sediments from runoff entering the Bay and its tributaries, and minimize the adverse effects of human activities on state waters and aquatic resources. New development is generally discouraged in an RPA. See Fairfax County Code, Ch. 118, Chesapeake Bay Preservation Ordinance.

SITE PLAN: A detailed engineering plan, to scale, depicting the development of a parcel of land and containing all information required by Article 17 of the Zoning Ordinance. Generally, submission of a site plan to DPWES for review and approval is required for all residential, commercial and industrial development except for development of single family detached dwellings. The site plan is required to assure that development complies with the Zoning Ordinance.

SPECIAL EXCEPTION (SE) / SPECIAL PERMIT (SP): Uses, which by their nature, can have an undue impact upon or can be incompatible with other land uses and therefore need a site specific review. After review, such uses may be allowed to locate within given designated zoning districts if appropriate and only under special controls, limitations, and regulations. A special exception is subject to public hearings by the Planning Commission and Board of Supervisors with approval by the Board of Supervisors; a special permit requires a public hearing and approval by the Board of Zoning Appeals. Unlike proffers which are voluntary, the Board of Supervisors or BZA may impose reasonable conditions to assure, for example, compatibility and safety. See Article 8, Special Permits and Article 9, Special Exceptions, of the Zoning Ordinance.

STORMWATER MANAGEMENT: Engineering practices that are incorporated into the design of a development in order to mitigate or abate adverse water quantity and water quality impacts resulting from development. Stormwater management systems are designed to slow down or retain runoff to re-create, as nearly as possible, the pre-development flow conditions.

SUBDIVISION PLAT: The engineering plan for a subdivision of land submitted to DPWES for review and approved pursuant to Chapter 101 of the County Code.

TRANSPORTATION DEMAND MANAGEMENT (TDM): Actions taken to reduce single occupant vehicle automobile trips or actions taken to manage or reduce overall transportation demand in a particular area.

TRANSPORTATION SYSTEM MANAGEMENT (TSM) PROGRAMS: This term is used to describe a full spectrum of actions that may be applied to improve the overall efficiency of the transportation network. TSM programs usually consist of low-cost alternatives to major capital expenditures, and may include parking management measures, ridesharing programs, flexible or staggered work hours, transit promotion or operational improvements to the existing roadway system. TSM includes Transportation Demand Management (TDM) measures as well as H.O.V. use and other strategies associated with the operation of the street and transit systems.

URBAN DESIGN: An aspect of urban or suburban planning that focuses on creating a desirable environment in which to live, work and play. A well-designed urban or suburban environment demonstrates the four generally accepted principles of design: clearly identifiable function for the area; easily understood order; distinctive identity; and visual appeal.

VACATION: Refers to vacation of street or road as an action taken by the Board of Supervisors in order to abolish the public's right-of-passage over a road or road right-of-way dedicated by a plat of subdivision. Upon vacation, title to the road right-of-way transfers by operation of law to the owner(s) of the adjacent properties within the subdivision from whence the road/road right-of-way originated.

VARIANCE: An application to the Board of Zoning Appeals which seeks relief from a specific zoning regulation such as lot width, building height, or minimum yard requirements, among others. A variance may only be granted by the Board of Zoning Appeals through the public hearing process and upon a finding by the BZA that the variance application meets the required Standards for a Variance set forth in Sect. 18-404 of the Zoning Ordinance.

WETLANDS: Land characterized by wetness for a portion of the growing season. Wetlands are generally delineated on the basis of physical characteristics such as soil properties indicative of wetness, the presence of vegetation with an affinity for water, and the presence or evidence of surface wetness or soil saturation. Wetland environments provide water quality improvement benefits and are ecologically valuable. Development activity in wetlands is subject to permitting processes administered by the U.S. Army Corps of Engineers

TIDAL WETLANDS: Vegetated and nonvegetated wetlands as defined in Chapter 116 Wetlands Ordinance of the Fairfax County Code: includes tidal shores and tidally influenced embayments, creeks, and tributaries to the Occoquan and Potomac Rivers. Development activity in tidal wetlands may require approval from the Fairfax County Wetlands Board.

Abbreviations Commonly Used in Staff Reports

A&F	Agricultural & Forestal District	PDH	Planned Development Housing
ADU	Affordable Dwelling Unit	PFM	Public Facilities Manual
ARB	Architectural Review Board	PRC	Planned Residential Community
BMP	Best Management Practices	RC	Residential-Conservation
BOS	Board of Supervisors	RE	Residential Estate
BZA	Board of Zoning Appeals	RMA	Resource Management Area
COG	Council of Governments	RPA	Resource Protection Area
CBC	Community Business Center	RUP	Residential Use Permit
CDP	Conceptual Development Plan	RZ	Rezoning
CRD	Commercial Revitalization District	SE	Special Exception
DOT	Department of Transportation	SEA	Special Exception Amendment
DP	Development Plan	SP	Special Permit
DPWES	Department of Public Works and Environmental Services	TDM	Transportation Demand Management
DPZ	Department of Planning and Zoning	TMA	Transportation Management Association
DU/AC	Dwelling Units Per Acre	TSA	Transit Station Area
EQC	Environmental Quality Corridor	TSM	Transportation System Management
FAR	Floor Area Ratio	UP & DD	Utilities Planning and Design Division, DPWES
FDP	Final Development Plan	VC	Variance
GDP	Generalized Development Plan	VDOT	Virginia Dept. of Transportation
GFA	Gross Floor Area	VPD	Vehicles Per Day
HC	Highway Corridor Overlay District	VPH	Vehicles per Hour
HCD	Housing and Community Development	WMATA	Washington Metropolitan Area Transit Authority
LOS	Level of Service	WS	Water Supply Protection Overlay District
Non-RUP	Non-Residential Use Permit	ZAD	Zoning Administration Division, DPZ
OSDS	Office of Site Development Services, DPWES	ZED	Zoning Evaluation Division, DPZ
PCA	Proffered Condition Amendment	ZPRB	Zoning Permit Review Branch
PD	Planning Division		
PDC	Planned Development Commercial		